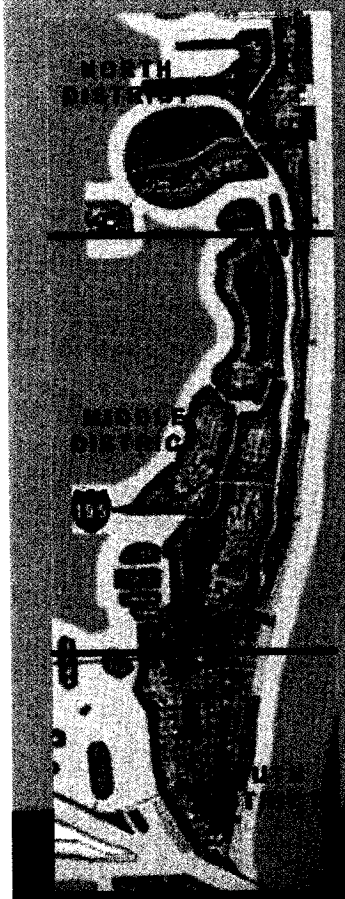
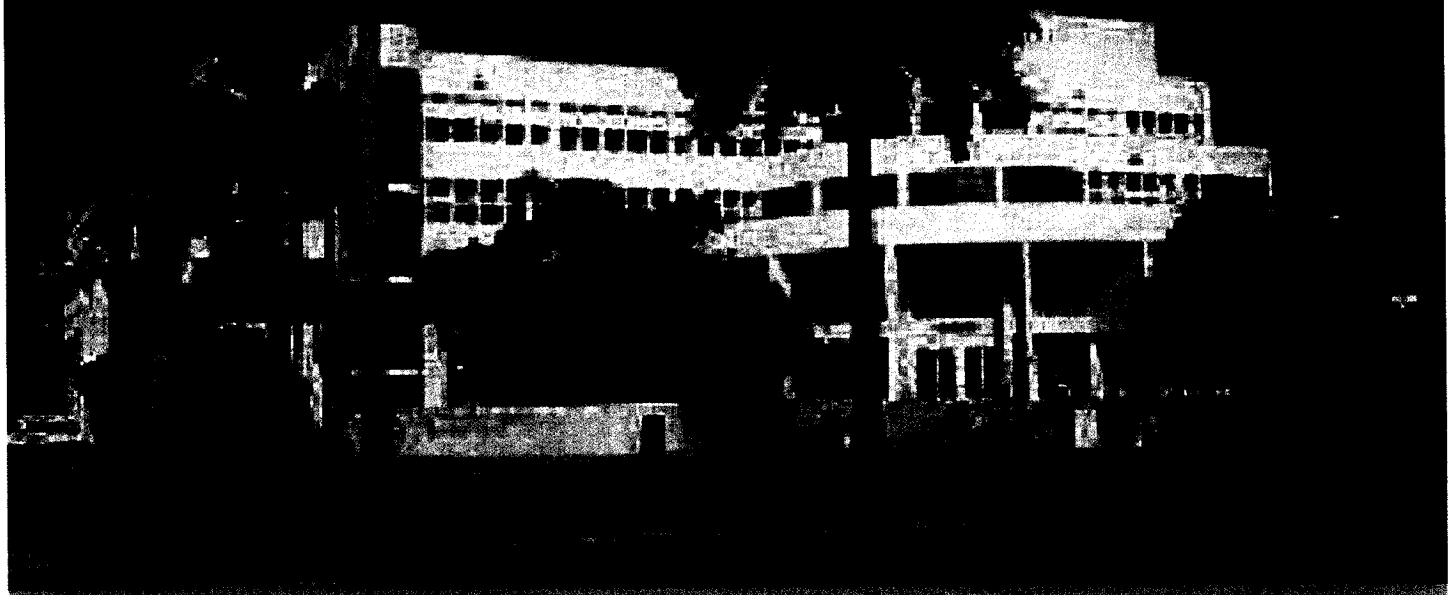


City of Miami Beach, Florida

Operational Staffing Optimization Models

Final Report

March 1, 2006



MAXIMUS

HELPING GOVERNMENT SERVE THE PEOPLE

MIAMI BEACH POLICE DEPARTMENT

OPERATIONAL STAFFING OPTIMIZATION MODELS

FINAL REPORT

March 1, 2006

MAXIMUS

HELPING GOVERNMENT SERVE THE PEOPLE®

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Miami Beach Police Department
Operational Staffing Optimization Models

EXECUTIVE SUMMARY

MAXIMUS is pleased to present this evaluation of current operational staffing and deployment within the Miami Beach Police Department. In this report, we present our analysis of the current staffing and assignments of the Police Department, including patrol, investigations, and special detail assignments. We evaluate the impact of current staffing procedures and policies as well as other policies that impact availability for service and work performance.

We provide many different observations and recommendations throughout this report. Some of the more critical observations and recommendations include the following points:

- The Miami Beach Police Department should strive to enhance its patrol response staffing and scheduling to meet the following standards
  - District officers should handle 80% - 90% of the calls for service workload in their assigned district.
  - District officers should average no more than 50% - 60% of their available time on calls for service during off-peak times.
  - District officer should average no more than 70% - 80% of their time on calls for service during peak CFS hours as long as the 70% - 80% time commitment is no longer than four hours in duration.

- MAXIMUS recommends that the city continue to use a four day, ten hour schedule but with the following alterations.

  - The shift times should be as follows:
    - Midnight – 2100 hours – 0700 hours
    - Day – 0630 hours – 1630 hours
    - Evening – 1600 hours – 0200 hours

  - An overlay shift should be added to the South District on Thursday, Friday, Saturday and Sunday beginning at 2000 hours and ending at 0600 hours.

- Minimum staffing should be left to the discretion of the District Captain in consultation with the shifts lieutenants. Factors that should be taken into account include officer safety considerations, the availability of other departmental resources, and workload demand.

- The city should consider re-instituting a leave buy-back program. Under the current procedures, officers must use or lose leave time beyond that which they can accrue. In order not to lose the leave time, officers will use it. This creates conditions that sometimes result in staffing shortages that have to be filled by officers on overtime. During the study period, the city paid patrol officers for some 26,900 hours at time and one-half for "manpower shortages" and for some 1,150 hours, at double time, for "forced patrol overtime." Leave policies involving this recommendation might include vacation leave, sick leave, and emergency vacation.

- The department's current leave use policy requires personnel to call in at least 24 hours in advance of an absence for vacation, floating holidays or religious holidays. Based on studies of other similar agencies policies, MAXIMUS consultants recommend that the department should seek to change this provision so that time off for vacation, floating holidays, and religious holidays must be requested 14 days in advance.

- Additional limitations should be placed on leave requests during the department's busiest season. The analysis above demonstrated that the average calls per service per week during the defined "winter" season (December through May) averaged about 16% higher than during fall and summer. A limitation might take the form of reducing the number of people that can be off for each work units by season.

- The Miami Beach Police Department's current policy states that seniority shall be the sole determinant governing many of the policies of the Department. Although seniority traditionally has been given great significance in law enforcement agencies, if used as the sole determinant factor, it can create issues. For example, agencies that utilize strictly seniority for shift bidding, frequently find that the majority of less experienced officers end up on the highest crime shifts.We recommend a revision to the current policy to state that seniority is only one of several factors taken into account rather than being the sole determinant factor governing Department policy.

- In order to maximize high quality service to the public by providing adequate staffing, to minimize the potential impact of fatigue from substantial overtime and to improve targeted show up rates, we recommend that:

    - The total number of hours an officer works per seven day period should be restricted so that, once an officer works 64 hours in the seven-day work period, the officer can work no additional "off-duty" hours. An officer may exceed 64 hours in order to complete the officer's on-duty schedule or to work overtime assignments. Currently, MBPD officers work 4 ten hours shifts. Sixty four hours would allow them to work the equivalent of

their normal shift and allow for up to 8 hours per day on their three days off, assuming no overtime.
  - No off-duty work can be performed in the six hours directly preceding an officer's shift starting time.
  - During a seven day work week, as soon as an officer exceeds 64 hours of work – regardless of the sources (on-duty, overtime, court time, or off-duty) – the officer can work no additional off-duty jobs.
  - The city should consider regulations that permit police officers from other agencies to work off-duty in Miami Beach, under the same rules as for Miami Beach officers. This would include that the officer be accounted for through the Miami Beach dispatch system and that the officer supply a portable radio that can communicate directly with the dispatch center.

- The city and the department should adopt a more strategic approach to traffic enforcement by establishing a traffic collision analysis function. This function might be placed either in the police department or in the public works department. By using the information that would result from such an analysis function – such as the violations that lead to traffic collisions, frequent collision time periods and frequent crash locations -- traffic enforcement components can be more strategically assigned to use various tools to modify motorist behavior. Such focused enforcement may well be more effective in reducing collisions than more traditional traffic assignment procedures.

- Miami Beach should install a monitored camera and enhanced lighting system to monitor the beach and serve as a crime prevention tool.

- The city and the police department should continuously monitor beach front safety. Consideration should be given to a second, overlapping shift to expand beach coverage from 5:00 pm to 1:00 am. The possibility of hiring security officers to augment patrol should be considered. The existing private security contract might be expanded to accomplish this.

- Without the ability to demonstrate verifiable results for the level of effort expended for Redevelopment Area (RDA) policing, it is difficult to document the value of the RDA policing efforts. With a total budget of some $5 million, it is important that the MBPD justify the expense. The Miami Beach Police Department should adopt a formal problem oriented policing methodology to identify and track the work of the personnel assigned to the RDAs. the first key element will be for the city to reconfigure its geographic information file so that activity in the RDA areas can be isolated from work outside the area. because the city still wishes to focus on South Pointe, even though it no longer an "official" RDA and because the city center is still a formal RDA, the department needs to be able to track activity that occurs in the RDA in order to determine the impact of its community policing activities on the areas.

- Rather than add sworn personnel to Property Crimes, Economic Crimes and Auto Crimes the department should add PSS positions as Investigative Aides. These civilians should be trained to support investigators by making telephone calls, checking computer files and conducting analysis to discover patterns crimes and repeat offenders. By shifting substantial portions of the office work that is now performed by sworn officers to civilians, detectives can be freed to work the streets and track down and interview witnesses and suspects.

- Detectives should be scheduled to work five 8.5 hours days with substantial weekend and evening coverage so that investigations can be pursued while evidence is still fresh and witnesses and victims still are readily available for interviews. The department needs to assess the frequency with which detectives are called out and how long it takes them to respond. Victims should not have to wait at a crime scene for a substantial time waiting for a detective. Especially on weekends, the department may need to staff investigations on a 24 hour basis.

- The Miami Beach Police Department should consider reorganization of the Chief's Office, Patrol Division, and Support Services Division in order to assist with overall implementation of this report.

- The Miami Beach Police Department should consider using private security to fill various positions, such as finger printing citizens, issuing parking tickets to violators of handicap parking, guarding prisoners who are hospitalized and providing assistance on site to protect the integrity of crime scenes. This would allow officers to concentrate their efforts on duties that only sworn officers could do. This program could also reduce overtime hours by sworn officers on the job.

Miami Beach Police Department
Operational Staffing Optimization Models

1. INTRODUCTION

The City of Miami Beach retained MAXIMUS to conduct a staffing and deployment analysis of the Miami Beach Police Department, and we are pleased to submit this final report of our analysis.

The scope of this project is defined in the City's original request for proposals, to include the following:

"The goal for this contract is for the consultant to provide relevant and realistic recommendations on how to most effectively utilize Miami Beach Police Department resources, while maintaining and improving police services. The consultant will work closely with a committee to be comprised of representatives from command staff, rank and file, the Fraternal Order of Police, the Office of Budget and Performance Improvement, and Labor Relations to explore concerns, develop and test solutions. The consultant should develop practical and affordable solutions that are fair, impartial, humane and efficient and ensure that priority is given to the service delivered by the City to its residents and businesses. The terms of the contract are subject to negotiation, and City desires that Respondents recommend best practices for incorporation into the program. The scope of services will include the following:

- Conducting management and operational reviews of relevant Department policies and procedures;
- Review the current operating environment including:
- arrests, calls for service, requests for police personnel to work in an off-duty capacity at various commercial establishments, a significant number of major events and traffic control at road construction sites;
- current schedules; and regular and overtime staffing levels;
- the frequency of patrol overtime, and off-duty and secondary employment.
- Identify best practices of other police departments around the Country and discuss methods used successfully as well as pitfalls that they have encountered in implementing specific policies and practices relative to identified concerns.
- Recommend policies regarding appropriate levels and conditions for use of patrol overtime, off-duty, and secondary employment.
- Implement or calibrate a police staffing optimization model for the City that incorporates recommended policies and is able to respond to changing operating conditions in the future and utilize the model with existing conditions to:
- Develop schedules for assigning required staffing most productively and equitably;
- Determine the number of field patrol officers and supervisors required to enable the Department to: respond to emergency and non-emergency demands of citizens

in a timely manner, conduct prevention and other proactive patrol tasks effectively including community-oriented policing and problem solving; conduct all other patrol tasks effectively, including traffic control and special missions work; allow officers to meet all administrative requirements satisfactorily, including report writing, training, court obligations; ensure the safety of the public and the police officers;

- Design a plan for deploying the required number of patrol officers and supervisors most cost effectively, by shift and patrol area, in response to geographic incidence of crime, demands for non-crime services, and policing approach selected by the Department; and
- Assess the impact on proposed changes including police community relations, cost impacts, other support requirements".

MAXIMUS is pleased to present this evaluation of current operational staffing and deployment within the Miami Beach Police Department as defined by the project scope. This report consists of fourteen sections, as follows:

1. Introduction
2. District Patrol Response (includes Bicycle / Beat Unit)
3. Patrol Supervisors (Sergeants)
4. Traffic / Motors / Accident Investigation
5. ATV – Beach Patrol
6. Marine Patrol
7. RDA
8. Crime Suppression
9. Crime Prevention
10. School Resources
11. Strategic Investigations
12. Criminal Investigation
13. Organizational Review
14. Layers of Security

The core of this report is the staffing analysis, embodied in sections two through twelve. Within each of those sections we provide the following information:

1. **Overview.** This is a brief description of the area being covered and some general principles of staffing the function.

2. **Target Staffing Criteria and Rationale for Miami Beach.** These will be presented in the form of flexible ranges in the nature of guidelines. For each, we discuss the reasons for the suggested targets, including experiences of other jurisdictions.

3. **Analysis of Current Miami Beach Conditions.** In this part of the discussion, we will include quantitative descriptions of staffing and various barrier and

obstacles that the project team may have found that impede MBPD from matching the target criteria.

4. **Optimal Models for Miami Beach**. In this section we will present our recommendations for alternative models, where appropriate, that optimize staffing in the MBPD.

5. **Implementation Issues and Final Recommendations**. As appropriate, our suggestions for how the City may wish to proceed with implementation of the recommendations included within the respective section.

The target criteria listed below result from our analysis of the current work being performed by the Miami Beach Police Department, our interviews with stakeholders both within the department and outside the department, and a review of staffing practices from across the country. Some targets are based on the time needed to deal with workload that is generated from the public such as calls for police service and reports of crimes. Other standards are based on the need for a police department to engage in proactive and discretionary activities designed to prevent and control crime, violence, and disorder in the community. In some instances of discretionary policing it is difficult to judge when the staff assigned matches the need. For example, at what point have enough personnel resources been devoted to anti-drug efforts? Often the answers are based more on professional judgment and public perception than on quantifiable data.

Many departments similar in size to Miami Beach use special units to supplement patrol response officers. Such units are designed to patrol in special purpose vehicles such as ATV and bicycles or to perform specialized functions such as traffic control, enforcement and accident investigation and conduct anti-crime operations. Frequently the work of special units is discretionary. They focus on available targets of opportunity or seek to control problem behavior. They may react to some problems such as driving while intoxicated or a pattern of street robberies but seek to act proactively through crime prevention activities or through working in schools.

Most often the work performed by such units is generated not by citizen requests but when members of the unit initiate contact. For example, although the public may call about a general traffic problem, the work of traffic officers is usually recorded when they make a stop based on their observation of a traffic violation or of behavior that indicates impaired driving. The discussion below includes a description of some of the key operational elements for such units.

2. PATROL

OVERVIEW

Examination of patrol staffing involved focusing attention on two primary sources of patrol work: calls for service and self initiated activity.

- Calls for Service (CFS) – Calls for service are those episodes which the public initiates when they request police service by making a telephone call (either emergency or non emergency), stopping an officer on the street, appearing at a police station, or by some other means.
- Self Initiated Activity (SI) – Self initiated tasks occur when individual officers, on their own initiative, stop and check on vehicles (either because of suspicious circumstances or because of traffic or license violations), stop pedestrians, check on buildings, follow-up earlier incidents, write reports and perform other discrete tasks. Generally speaking, self initiated work is composed of those episodes the officer starts. Self initiated activities may include tasks that officers perform at certain times during their shift such as school zone patrol or traffic enforcement.

Both sources of work are important to patrol operations. However, a police agency can have less impact on when calls for service take place than on the timing of self initiated activity. A call for service begins when a citizen makes a request for service usually with the expectation that the police will respond immediately to that request. Although it is possible to manage this workload somewhat–separating urgent calls for immediate priority from non-urgent calls for delayed response–the times that calls originate cannot be controlled by the police.

Self initiated activity is, to a large extent, discretionary. Officers can initiate encounters when they have time to do so, and when there are targets of opportunity. Much of this activity can be deferred to times when calls for service workload are lighter. However, self initiated activity does depend on legitimate opportunities being available and such times often coincide with high calls for service times. Car stops and checks of suspicious activities frequently result from peak times of human movement and interaction.

Having sufficient time available for self initiated activity is important if a department wants to work to proactively solve crime, violence, and disorder problems through community policing. The best self initiated police work involves not only car stops and pedestrian checks, but also time for officers to work with residents and businesses to solve the problems underlying crime, violence, and disorder. Time spent in this regard, when appropriately directed, can have the benefit of reducing calls for service as the conditions causing the problems residents call about are improved.

Measuring Workload and Time Consumed

When examining MBPD's patrol workload, MAXIMUS used the following guidelines to measure how much time is currently consumed:

- Calls for service time consumed is measured beginning from the time that an officer begins to travel to the specific location identified by a calling citizen.
- For self initiated work, time consumed begins when the officer notifies communications that the officer has initiated an event on the officers own volition.
- In both cases, the ending point is when the officer lets the dispatch center know that the officer has cleared, or completed, the activity and is ready to handle another assignment, if needed.

MAXIMUS reviewed a database of Miami Beach dispatch activity for a year's period from June 1, 2004 through May 31, 2005. This database recorded 198,691 dispatch events. It included 122,419 dispatches that resulted from a citizen call for service (CFS) and 76,272 activities initiated by departmental personnel (SI).

A complete analysis of patrol workload requires being able to measure the total amount of patrol officer time, and therefore requires records that show how much time each officer spent on each call. The total time consumed by an event includes not only the primary unit assigned but also the time committed by backup units. The Miami Beach data base, includes, at MAXIMUS' request, a separate record for each unit on each call so that a more accurate measurement could be made of the total time consumed on these events.

The following methodology was used to calculate the average amount of time consumed for the average week:

> The total time by each unit on each citizen initiated call for service responded to by Miami Beach officers was averaged by day of the week and hour of the day to generate a matrix showing for each hour long time block the average hours of time spent on calls for service.

As a result of this procedure a matrix that estimates the average time consumed on citizen calls for service over the course of the average week was constructed. It shows the following average time consumption, in hours:

CITY WIDE
AVERAGE HOURS CONSUMED BY CALLS FOR SERVICE - ALL UNITS

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	14.4	12.4	12.3	11.6	13.3	19.1	14.9
0100	12.2	11.8	9.6	10.4	11.6	17.6	23.7
0200	12.4	11.0	8.3	9.5	10.6	17.4	21.1
0300	13.0	10.7	8.3	10.0	10.7	19.2	22.7
0400	12.6	9.5	8.4	8.9	9.3	20.5	21.4
0500	11.7	8.2	7.7	8.3	8.7	21.0	19.9
0600	10.3	7.8	6.8	6.6	7.6	16.4	16.7
0700	11.8	8.3	7.4	6.2	7.7	12.5	12.4
0800	13.6	9.8	10.7	8.6	9.8	10.5	11.6
0900	15.6	12.5	13.0	10.9	11.4	11.0	12.6
1000	15.3	13.6	13.6	12.3	10.8	12.3	13.4
1100	14.8	14.1	14.1	13.3	11.8	13.5	15.0
1200	16.7	14.5	13.3	13.0	12.9	14.3	16.5
1300	17.1	13.4	13.5	13.9	14.6	14.4	17.0
1400	16.3	14.0	13.7	14.0	15.9	14.3	16.6
1500	14.6	14.7	15.3	14.6	16.3	14.6	14.6
1600	13.8	14.7	16.5	15.6	17.1	15.1	15.3
1700	15.6	14.0	15.7	16.8	19.0	17.9	16.2
1800	15.0	14.2	15.3	15.4	17.6	18.0	16.2
1900	14.3	13.8	14.9	14.9	16.5	17.7	17.1
2000	13.2	13.1	13.8	13.4	17.1	18.4	14.9
2100	12.5	12.5	13.3	11.7	16.2	18.5	14.6
2200	12.8	10.6	12.4	11.7	16.2	19.1	14.2
2300	12.5	10.8	11.2	11.7	17.1	19.6	14.4
						Total hrs =	2298.5

Each time block can be interpreted as the amount of personnel hours needed to handle calls for service only during that time on that day. For example: the 12.5 figure on Monday night from 2300 hours until midnight means that on the average, over the course of the year, 12½ hours are consumed by calls for service during that period. Therefore, if officers did nothing but respond to calls for service, 12½ hours of officer time will be needed to handle the CFS workload from 2300 until midnight on Mondays.

Many police departments will have busy periods during week day afternoons and also typically from 2200 through 0100 hours on Saturday night until Sunday morning. Miami Beach has a very different call for service profile because of the 5:00 a.m. closing time of its bars and clubs. Its peak period is from about 0100 until 0600 on Saturday and Sunday mornings.

The City of Miami Beach is divided into three patrol districts – South, Middle, and North. Each district has a somewhat different calls for service pattern. The calls for service matrix for the South District follows.

SOUTH DISTRICT
AVERAGE HOURS CONSUMED BY CALLS FOR SERVICE

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	7.3	5.8	5.9	5.6	6.7	10.1	7.7
0100	6.3	6.1	4.8	4.7	6.0	9.1	12.7
0200	6.5	5.3	4.1	4.5	5.7	9.6	12.1
0300	6.7	6.0	3.9	5.4	5.7	11.5	14.8
0400	7.2	5.3	4.4	5.2	5.2	12.4	14.6
0500	7.3	4.3	4.4	5.2	5.4	13.3	13.6
0600	5.6	4.3	3.5	3.9	4.7	10.2	10.4
0700	5.7	4.2	3.0	2.6	3.5	7.1	7.2
0800	5.8	4.7	4.0	3.5	3.7	5.3	5.8
0900	6.7	6.0	5.1	4.1	4.0	5.4	6.4
1000	6.4	6.9	6.3	5.1	4.1	6.2	6.4
1100	6.7	7.2	6.6	6.0	4.7	6.5	7.5
1200	6.9	6.9	6.3	5.0	5.7	6.8	8.4
1300	7.6	6.6	6.0	5.5	6.6	7.1	8.7
1400	7.4	6.7	5.6	5.1	7.6	7.2	8.5
1500	6.7	6.7	6.6	5.9	7.6	7.8	6.6
1600	6.7	6.9	7.3	7.3	8.2	8.2	7.7
1700	6.6	5.8	7.0	8.0	9.2	8.9	8.1
1800	7.3	5.8	6.8	6.9	8.6	9.0	7.8
1900	6.7	5.7	7.0	6.6	7.7	8.9	8.5
2000	5.5	5.4	6.2	5.9	8.3	9.5	7.0
2100	5.4	5.3	6.2	4.9	7.3	9.6	6.8
2200	6.0	5.0	5.5	4.4	7.0	9.5	7.1
2300	6.1	5.2	4.9	5.3	8.2	10.0	7.2
						Total hrs =	1123.7

Peaks periods in the South reflect the South Beach night activity characterized from a police perspective by large crowds and frequent disorder. The peak periods are on Saturday and Sunday mornings from 0100 until 0700.

The pattern in the Middle District is somewhat different. The Middle District matrix is shown below.

MIDDLE DISTRICT
AVERAGE HOURS CONSUMED BYCALLS FOR SERVICE

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	4.0	2.9	2.9	3.2	3.2	4.5	3.8
0100	3.2	2.2	2.2	3.1	2.6	4.8	6.0
0200	2.9	2.1	1.9	2.9	2.5	4.1	5.1
0300	3.6	1.9	2.4	2.2	2.6	4.2	4.4
0400	2.9	2.3	2.5	1.6	2.2	4.7	4.1
0500	2.2	2.5	2.2	1.6	1.7	4.2	3.7
0600	2.4	2.3	1.8	1.4	1.6	3.0	4.3
0700	3.2	2.5	2.4	1.8	2.0	2.3	3.3
0800	4.3	3.2	3.7	2.5	2.6	2.0	3.5
0900	5.0	4.1	4.6	3.5	3.5	2.7	3.5
1000	5.2	3.9	4.0	3.8	3.3	3.0	3.9
1100	4.8	3.8	4.3	4.3	3.8	3.2	4.1
1200	6.2	4.4	4.0	4.5	4.3	3.4	4.6
1300	6.2	4.1	4.4	4.7	4.9	3.8	5.3
1400	5.6	4.2	5.0	4.8	4.9	3.8	5.3
1500	4.6	4.4	5.1	5.0	4.8	3.6	4.6
1600	4.0	4.6	4.9	4.4	5.0	3.5	4.0
1700	5.0	4.3	4.2	4.9	5.0	5.0	3.6
1800	3.8	4.3	4.2	4.7	4.7	4.7	3.4
1900	3.5	4.0	4.1	4.3	4.9	4.7	4.2
2000	3.3	3.8	3.7	3.7	4.3	4.8	3.3
2100	3.1	3.2	3.3	3.7	4.4	4.9	3.6
2200	2.9	2.9	3.1	4.0	4.5	5.2	3.2
2300	2.5	2.9	3.0	3.4	4.3	5.0	3.8
						Total hrs =	622.4

Although, there is significant activity early Sunday morning, peak activity is on Monday from 1200 until 1500.

The North District has its own pattern as well. The North District matrix is shown in the next chart.

NORTH DISTRICT
AVERAGE HOURS CONSUMED BY CALLS FOR SERVICE

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	2.9	3.3	3.3	2.9	3.3	4.3	3.2
0100	2.5	3.0	2.4	2.5	2.9	3.7	4.8
0200	2.7	3.1	2.2	2.2	2.3	3.6	3.8
0300	2.5	2.6	1.9	2.4	2.4	3.2	3.4
0400	2.4	1.8	1.3	2.2	1.8	3.0	2.6
0500	2.2	1.4	1.0	1.6	1.6	3.2	2.5
0600	2.3	1.3	1.4	1.3	1.3	3.2	2.1
0700	2.8	1.5	2.0	1.8	2.2	3.0	1.9
0800	3.5	1.8	2.9	2.5	3.5	3.1	2.3
0900	3.8	2.3	3.3	3.2	3.7	2.8	2.6
1000	3.6	2.8	3.3	3.5	3.3	3.1	3.1
1100	3.2	3.2	3.2	3.1	3.1	3.7	3.3
1200	3.5	3.1	3.0	3.4	2.8	3.9	3.3
1300	3.3	2.7	3.2	3.7	3.1	3.4	2.9
1400	3.2	3.1	3.2	4.0	3.4	3.2	2.8
1500	3.3	3.5	3.6	3.4	3.9	3.1	3.2
1600	3.0	3.2	4.3	3.7	3.8	3.4	3.5
1700	4.0	3.8	4.3	3.8	4.8	4.0	4.5
1800	3.9	4.1	4.0	3.7	4.3	4.1	4.9
1900	4.1	4.0	3.5	3.8	3.8	4.0	4.5
2000	4.3	3.8	3.7	3.6	4.2	4.1	4.6
2100	3.9	4.0	3.6	3.1	4.4	4.0	4.2
2200	3.7	2.8	3.7	3.2	4.6	4.4	3.8
2300	3.5	2.6	3.2	2.9	4.5	4.5	3.2
							Total hrs = 534.1

In North, peak periods tend to be Friday, Saturday and Sunday evenings from 1700 through midnight and later.

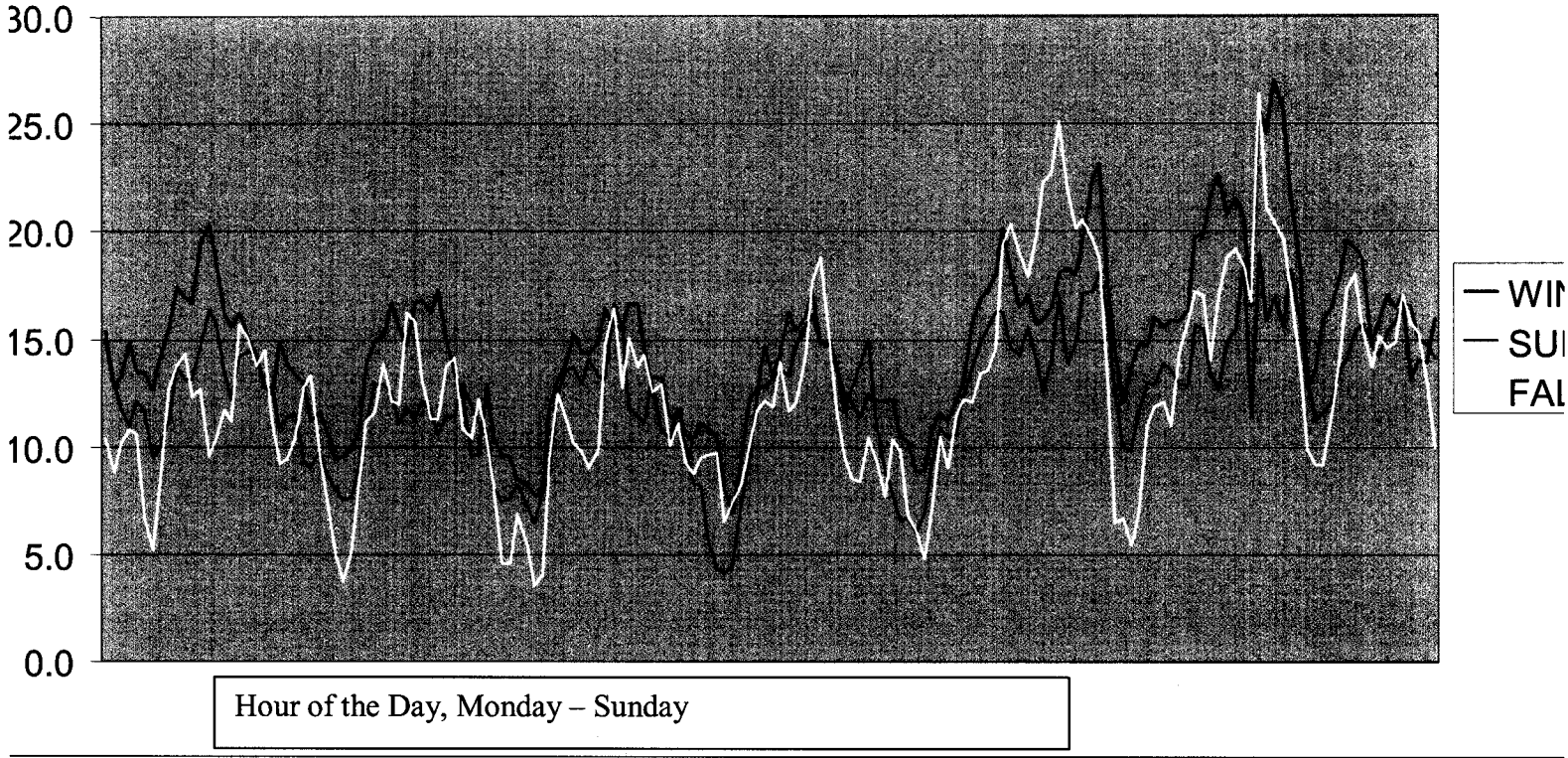
The three districts vary in the total amount of time consumed by calls for service. The average hours per week in the South District is 1,123.7 hours. In the Middle District, the average is 622.4 hours and in the North District the average is 534.1 hours. The South District is twice as busy as the North District.

SEASONAL VARIATIONS IN WORKLOAD

Miami Beach was described to the project team by city staff as having three time periods during which police activity may vary. Miami Beach has been a wintertime tourist destination for people from the northern United States and Canada for many years. It has also become an entertainment center for people from all over the world because of the

reputation of South Beach. The calls for service data were averaged for each of the three "seasons" defined by the city staff – winter: from December through May; summer from June through September; and fall including October and November. The resulting comparison is shown in the following graph.

AVERAGE TIME CONSUMED PER HOUR BY DAY OF THE WEEK PER SEASON



The winter months average 2,447 hours of calls for service activity per week. The summer average falls to 2,116 hours p week, and the fall average is 2,081. The winter workload is 17.5% greater than the fall workload and 15.6% greater than summer workload. Summer work is 1.7% greater than the fall work. An ideal staffing model would have the capability t increase staffing to meet the peak period. But, as the lines of the chart show, the winter season does not have the highest demand for every hour and for each day. One method to take these variations into account may be to encourage officers t vacation leave from June through November and limit the availability of leave during the winter months.

TARGET PATROL STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

There are no universally accepted standards for how much patrol time should be consumed by calls for service. Many departments set an informal target time for the amount of patrol officer time consumed by calls for service from 30-40%. Other departments may set targets at 50% or 60%. A common rule of thumb, established before community policing became prevalent, was that 1/3 of the time should be spent on calls for service, 1/3 on self initiated activity and 1/3 on uncommitted patrol time.

Few jurisdictions track closely how patrol officer time is used or set formal targets. However, recent work in other cities by project team members working on this study show the following target utilizations for patrol officer calls for service time:

- Kansas City MO – 35%
- Chandler AZ (rapidly growing Phoenix suburb of 150,000) – 40%
- Tallahassee FL – 67% (with target of 50%)
- West Palm Beach FL – 43%

The target for patrol staffing is a policy decision that is usually balanced by the work that needs to be performed and the resources a jurisdiction has available for police services. A target of 35% CFS time consumed requires more officers than a target of 50%.

An important consideration is how a city wants its patrol officer time used. Local demographics, crime and disorder problems and policing style all can have an impact on the demands on patrol officer time. One city may view the patrol function as primarily composed of response to citizen calls for service, self-initiated activities to deter and discover criminal activities (through traffic stops, pedestrian checks, and building checks) and a certain amount of administrative activity.

Another department may want its patrol officers to also be heavily involved in community policing and problem solving activities. Such activities include spending time getting to know the people and conditions in the beat, attending community meetings to listen to neighborhood concerns, conduction analysis to develop plans to address community crime and disorder problems, and being a catalyst to bring local government operations to bear to improve the quality of life in the city's neighborhoods.

A third agency may want it patrol officers to spend some portion of their time conducting follow-up investigations of crime that have been reported. Other agencies may use patrol for some mixture of these activities.

Our recommendations for Miami Beach are based on experience in other agencies, our interviews with city and police leadership and our direct observations of patrol activity. We offer three targets for the department based on the degree to which the city wants patrol officers involved in community policing and problem solving.

In each target we examine the use of district officers, which are those officers assigned to patrol response duties. District officers include bicycle beat officers since they are regularly dispatched to calls for service in the areas they patrol.

Target 1 – Patrol time is devoted primarily to calls for service response and self initiated activity.

- District officers should handle 80% - 90% of the calls for service workload in their assigned district.
- District officers should average no more than 50% - 60% of their available time on calls for service during off-peak times.
- District officer should average no more than 70% - 80% of their time on calls for service during peak CFS hours as long as the 70% - 80% time commitment is no longer than four hours in duration.

Target 2 – Patrol time is used for CFS response, SI activity, and support for community policing activities conducted primarily by other department personnel.

- District officers should handle 80% - 90% of the calls for service workload in their assigned district.
- District officers should average no more than 40% - 50% of their available time on calls for service during off-peak times.
- District officer should average no more than 70% - 80% of their time on calls for service during peak hours as long as the 70% - 80% time commitment is no longer than four hours in duration.
- District officers should average no more than 5% - 7.5% of their time on out-of-district calls for service

Target 3 – Patrol time is used for CFS response, SI activity, with heavy involvement of patrol officers in community policing and problem solving, especially during "prime time" community policing hours from noon through 9:00 pm Monday through Thursday. These prime time hours allow officers to attend community meetings, work with community organizations, meet with business people, and contact other governmental agencies.

- District officers should handle 85% - 90% of the calls for service workload in their assigned district.
- District officers should average no more than 35% - 45% of their available time on calls for service during community policing prime time.
- District officer should average no more than 60% - 70% of their time on calls for service during peak hours as long as the 60% -70% time commitment is no longer than four hours in duration.

- District officers should average no more than 3% - 5% of their time on out-of-district calls for service

Under Target 1, the primary use of patrol officer time is for calls for service and self initiated activity. Officers are expected to be busy with periods where they go from call to call, especially during peak periods. When they are not responding to calls, their time should be devoted to traffic stops, pedestrian and building checks and other actions designed to discover and deter criminal activity. Non-obligated patrol time should be spent at locations that have been identified as generators of frequent police activity. The time criteria set for this target considers officer fatigue factors (hence the four hour limit of 70%-80% straight) and officer safety—the time committed to CFS should not be so high as to make it difficult to get prompt help to an officer that needs it.

Target 2 provides for time to be spent not only on CFS and SI but also in support of community policing activities maintained primarily by other departmental personnel. In the South District, RDA officers are charged with community policing activities within the RDA boundaries and the department is adding six Public Safety Specialist positions – three in the North District and three in the Middle District – to implement a Neighborhood Contact program. Patrol officers, under Target 2, would have time to make additional household or business contacts to get to know people in their beats and to attend some community meetings organized by the department's community policing specialists. Consequently, this target recommends that more time be available during off-peak CFS time for such activity. It also recommends that a target be set to keep officers in their districts most of the time so that they become increasingly familiar with the people and conditions in the areas they work.

The third target recommends that officers handle almost all of the work in their district so that they have as complete a picture as possible of their district's crime and disorder problems. There is substantial value is officers working the same areas consistently and handling the bulk of the work in their assigned district. They become increasingly familiar with both the conditions and people in their area and this "local" knowledge increases their effectiveness. Consequently, the staffing model should seek to keep them "at home" to the largest extent possible. District officers should be able to handle most of the work in their district and to respond outside their district infrequently.

A cornerstone of good community policing is a close identity between officers and the area in which they work. This requires working in the same beat on a consistent basis, time to discuss beat problems with the officers that work the beat on other shifts, and an extensive knowledge of the people, problems, and conditions of the beat.

The third target also seeks to limit the time officers spend on calls for service during prime time community policing hours so that they will have adequate time to work with the community, business, the schools, and other governmental agencies. RDA officers and the new PSS positions would still perform a significant amount of community policing activities but under this target patrol officers would have the time to become full partners in the department's approach to community policing and problem solving.

CURRENT PATROL STAFFING CONDITIONS IN MIAMI BEACH

The MBPD had 149 officers assigned to patrol response in April 2005. They were distributed over the three shifts and three districts as follows:

	South	Middle	North	Bicycle Officers	Total
Midnight	26	12	14	4	56
Day	22	12	14		48
Afternoon	19	12	10	4	45
Total	67	36	38	8	149

Of the 149 patrol response officers, four bicycle officers are assigned to midnight shift and four bicycle officers are assigned to the afternoon shift according to the April 2005 staffing information. Bicycle officers respond to calls for service when heavy traffic makes it difficult for car-based response. They are usually assigned to discrete, small areas where their maneuverability is most useful. Their presence in densely populated areas also enables them to initiate enforcement activities.

Miami Beach patrol officers work four ten hour days followed by three days off. There are two hours of overlap scheduled between each shift. This time is consumed by ½ roll call for the on-coming shift followed by an hour of directed patrol targeted at problem locations. The shift completing its tour of duty returns to the station during the last ½ hour to complete paper work. There was no data indicating how productive this last ½ hour is.

Shift times are:

- Midnight 11:00 pm (2300 hours) to 9:00 am 0900 hours)
- Day 7:00 am (0700 hours) to 5:00 pm (1700 hours)
- Afternoon 3:00 pm (1500 hours) to 1:00 am (0100 hours)

The department creates a roster of those working for each shift for each day. These rosters were used to develop charts that show the number of personnel hours that are available, on the average, each day of the week and each hour of the day. Because of vacation, illness and other leave time not all officers show up as scheduled for shift for each day. In addition, officers take meal breaks of one hour during their shift and, when possible, attend court during on-duty hours.

If all officers came to work and no leave were taken, each of the 149 patrol officers would have 40 hours available each week (not counting meal breaks and court time. This would equal 5,960 hours per week. Patrol officers from this contingent are assigned to staff the front desk around the clock (168 hours per week), to fill in when a detention officer in unavailable (estimated at 72 hours of patrol officer time weekly) and to staff the

jail van (168 hours per week.) These deductions leave a potential 5,552 hours of patrol time each week.

Our analysis of patrol rosters shows that the number of patrol officer hours typically worked each week is 3,928. Compared to the total 5,552 hours if every one came to work, this would represent a "show-up rate" of 70.1%. This means, of those scheduled to work each week, at about 30% of the time is lost due to leave time. But, this figure is a bit misleading because the department uses a substantial amount of overtime to fill manpower shortages in patrol.

From June 1, 2004 through May 31, 2005 the department used a total of 29,890 hours for "manpower shortages" and 1,149 hours in forced patrol overtime. Critical manpower shortages are usually in patrol and it is estimated that 90% of the manpower shortage overtime is patrol generated, or about 26,900 hours. Added to the forced overtime, the annual overtime hours for patrol are about 28,050, or about 540 hours per week.

Consequently, the hours worked each week, without overtime, is approximately 3,388 hours (3,928 hours worked from roster data minus 540 hours of overtime). This represents a patrol show-up rate of 61.0%. The actual show-up rate may be still lower since patrol response vacancies are often filled by temporary reassignments of special unit officers. The study team did not find any systematic tracking of this reassignment practice.

A show-up rate of 61.0% is low compared to other agencies. Based on the study team's experience, and depending on a jurisdiction's leave time accrual policies, typical rates range from 75% to 85%. A recent MAXIMUS study of the Chandler AZ police department discovered a show-up rate of 82.3%. A high show-up rate usually reflects a young patrol force (at the low end of leave accrual rates) and may also be found in jurisdictions where public employees do not collectively bargain over employment conditions. Chandler has a young patrol workforce, a result of adding many officers in a short time to handle rapid city growth.

Meal breaks and on-duty court time also have an impact on patrol officer availability. An average of about 320 hours each week is consumed by meal breaks and 84 hours by on-duty court related appearances. The table below shows the distribution of the average weekly available patrol officer time, including bicycle officers, by hour of the day and day of the week.

CITY WIDE PATROL OFFICER TIME AVAILABLE
ADJUSTED FOR MEAL BREAKS AND COURT TIME

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	29.2	28.5	27.9	28.7	31.0	31.2	32.4
0100	19.8	18.6	18.4	19.2	21.0	21.3	21.3
0200	19.9	18.6	18.4	19.2	20.9	21.5	22.0
0300	19.7	18.2	18.2	18.8	20.7	21.4	22.1
0400	19.4	17.8	17.9	18.5	20.5	21.4	22.1
0500	19.3	17.5	17.5	18.3	20.3	21.4	22.1
0600	17.4	15.9	15.2	16.3	17.7	20.1	20.9
0700	27.4	25.2	24.7	26.4	27.9	29.3	30.2
0800	29.1	27.1	27.8	28.1	29.0	30.1	30.1
0900	19.8	18.8	19.4	19.1	18.6	20.0	19.9
1000	20.1	18.9	19.4	19.1	18.5	20.0	19.9
1100	19.8	18.4	18.9	18.3	17.8	19.5	19.7
1200	17.6	16.6	16.6	16.6	16.7	18.2	18.8
1300	16.3	14.8	14.8	15.4	15.9	16.0	16.0
1400	15.8	14.8	15.2	15.2	15.5	15.5	14.9
1500	27.6	26.3	27.4	27.5	26.8	26.9	26.1
1600	30.6	28.6	29.5	29.7	29.4	29.6	29.0
1700	21.4	19.5	19.8	20.1	20.3	20.9	20.1
1800	21.2	19.3	19.7	19.8	20.2	20.8	20.0
1900	19.5	18.3	18.3	18.6	19.3	19.7	19.4
2000	18.1	17.1	17.6	18.0	18.5	18.8	18.2
2100	17.0	16.2	16.9	16.9	17.4	17.7	16.8
2200	17.0	15.5	16.4	16.2	16.4	17.1	16.2
2300	27.6	26.3	27.1	28.3	28.6	29.0	27.3
						TOTAL	3523.6

This staffing pattern can then be compared against the city wide workload presented earlier as a test of how well the current allocation of patrol officers meets the target criteria above. This comparison combines the workload from all three of the police districts and compares it to the total number of patrol response officers that typically show-up. It is useful in providing a high level view of the match between personnel and calls for service workload. These results are displayed in the next chart.

CITYWIDE
AVERAGE PERCENT PATROL OFFICER TIME CONSUMED ON CALLS FOR SERVICE

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	49.2%	43.6%	44.0%	40.5%	42.8%	61.4%	46.0%
0100	61.5%	63.7%	52.3%	54.0%	54.9%		
0200	62.3%	59.0%	45.1%	49.6%	50.6%		
0300	66.0%	58.7%	45.4%	53.0%	51.6%		
0400	65.0%	53.2%	46.9%	48.1%	45.1%		
0500	60.7%	46.8%	43.7%	45.2%	42.7%		
0600	59.3%	49.2%	44.7%	40.6%	43.1%		79.9%
0700	42.9%	33.0%	30.1%	**23.6%**	**27.7%**	42.5%	41.0%
0800	46.9%	36.2%	38.4%	30.5%	33.9%	34.8%	38.4%
0900	78.8%	66.5%	67.1%	56.9%	61.1%	55.0%	63.0%
1000	76.0%	72.0%	70.0%	64.6%	58.2%	61.6%	66.9%
1100	74.7%	76.6%	74.9%	72.9%	66.2%	69.2%	76.2%
1200				78.0%	77.5%	78.8%	
1300							
1400							
1500	52.7%	56.0%	55.8%	53.1%	60.6%	54.2%	55.8%
1600	45.0%	51.5%	56.0%	52.4%	58.0%	50.8%	52.6%
1700	72.9%	71.9%	79.1%				
1800	70.9%	73.5%	77.7%	78.1%			
1900	73.2%	75.3%					
2000	73.0%	76.8%	78.3%	74.5%			
2100	73.1%	77.0%	78.3%	68.9%			
2200	75.0%	68.5%	75.2%	71.9%			
2300	45.4%	40.8%	41.1%	41.4%	59.6%	67.7%	52.8%

When the entire city is considered, a number of issues emerge. First, the Target 1 criteria specified that district officers should average no more that 70%-80% of their time on calls for service during peak periods and that such time commitments should persist no longer than four hours. The shaded areas represent time periods when the workload exceeds 80% or when workload is below 30%. There are a substantial number of these shaded areas which represent workload time consumptions outside the Target 1 criteria.

Secondly, there are periods that show a commitment to calls for service that are over 100%. This means that units other than patrol are helping handle the calls for service workload. The chart above indicated that under current conditions, patrol officers, by themselves, are not handling all the calls for service work. Comparing the total time needed for calls for service—2,298.5 hours—to the patrol officer time available—3,523.6 hours—shows that, if patrol officers were to handle all of the CFS workload, 68% of their time would be committed to calls for service.

Other units, however, help out with the calls for service workload. The next table shows the percent of the calls handled by each unit:

South District Units	39.7%
Middle District Units	22.5%
North District Units	20.3%
Bicycle Units	7.1%
Sergeants	2.4%
RDA	1.7%
Detective Units	1.7%
School Units	0.9%
PSS	0.7%
Beach/ATV	0.6%
Off Duty Units	0.5%
MISC	0.4%
Robbery Detail	0.3%
K9	0.3%
Lieutenants	0.3%
Motor Units	0.2%
SERT	0.2%
CST	0.2%
VAN	0.1%

Officers from the three patrol district units plus the bicycle officers account for 89.6% of the total calls.

Bicycle officers are an important part of the calls for service response in Miami Beach. They average about 102 hours a week on CFS response in the South District, about 22 hours in the Middle District and 32.5 hours in the North District. This represents 9.1% of the total CFS work in the South, 3.6% in the Middle, and 6.1% in the North.

The MBPD allocates its officers based on the three districts. Consequently, it is important to examine the match between district officers and the workload in their assigned district. The next two tables show the time that North patrol officers (including bicycle officers) have available and what percent of their time would be consumed if they responded only to calls in the North District.

NORTH PATROL OFFICER TIME AVAILABLE
ADJUSTED FOR MEAL BREAKS AND COURT TIME

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN	
0000		8.3	8.2	7.9	8.4	9.0	8.6	9.1
0100		5.3	5.2	5.1	5.5	6.1	5.9	5.9
0200		5.4	5.1	5.1	5.6	6.0	5.9	6.1
0300		5.4	5.0	5.1	5.4	6.0	6.0	6.2
0400		5.4	4.8	4.9	5.2	5.9	6.0	6.2
0500		5.4	4.8	4.9	5.2	5.9	6.0	6.2
0600		5.3	4.7	4.8	5.1	5.7	5.9	6.2
0700		8.4	7.6	7.5	8.2	8.6	8.9	9.1
0800		8.8	7.7	7.9	8.2	8.5	9.0	9.0
0900		6.3	5.3	5.3	5.3	5.2	5.9	5.9
1000		6.3	5.3	5.4	5.3	5.2	5.9	5.9
1100		6.2	5.1	5.4	5.2	5.3	5.9	5.9
1200		5.5	4.2	4.5	4.5	5.2	5.6	5.7
1300		5.1	3.8	4.2	4.3	4.7	4.7	4.7
1400		5.1	4.2	4.4	4.7	4.5	4.4	4.2
1500		8.7	7.9	8.0	8.1	7.8	7.6	7.5
1600		9.2	8.6	8.6	8.5	8.4	8.5	8.7
1700		6.3	5.8	5.8	5.9	5.9	6.0	6.2
1800		6.3	5.8	5.9	5.9	5.9	6.0	6.1
1900		6.0	5.7	5.7	5.7	5.8	5.7	6.0
2000		5.6	5.2	5.2	5.4	5.5	5.4	5.6
2100		5.0	4.8	4.8	4.6	5.0	4.9	5.0
2200		5.0	4.3	4.6	4.1	4.7	4.7	4.6
2300		8.1	7.5	7.8	8.1	8.1	8.1	7.9
							1024.0	

The next chart demonstrates the resulting time commitments that result from comparing the current North patrol officer availability matrix against the calls for service generated in the North District presented earlier.

NORTH DISTRICT: North District Patrol Time Consumed if all CFS work were handled by North Patrol Officers

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	35%	40%	41%	34%	36%	49%	35%
0100	47%	59%	47%	45%	48%	63%	
0200	50%	61%	42%	39%	39%	60%	62%
0300	45%	53%	37%	45%	40%	54%	54%
0400	44%	38%	**26%**	42%	31%	50%	41%
0500	40%	30%	**19%**	30%	**27%**	54%	41%
0600	43%	**26%**	**28%**	**24%**	**23%**	54%	33%
0700	34%	**19%**	**26%**	**22%**	**25%**	34%	**20%**
0800	39%	**23%**	37%	30%	41%	34%	**25%**
0900	61%	43%	63%	61%	72%	48%	44%
1000	57%	53%	61%	66%	63%	52%	52%
1100	52%	63%	58%	59%	58%	63%	56%
1200	64%	74%	67%	76%	54%	69%	58%
1300	64%	71%	76%		67%	73%	62%
1400	63%	74%	72%		75%	71%	67%
1500	37%	44%	44%	42%	50%	41%	43%
1600	32%	37%	50%	43%	46%	40%	40%
1700	63%	65%	74%	65%		67%	72%
1800	63%	70%	67%	64%	72%	68%	
1900	68%	71%	61%	66%	65%	69%	75%
2000	77%	73%	71%	68%	76%	75%	
2100	78%		74%	67%			
2200	75%	64%		79%			
2300	43%	34%	41%	36%	55%	56%	40%

With the exception of a few peak periods, if North District patrol officers were to handle all CFS work, they would generally meet Target 1 criteria. Overall, 52% of their available time would be consumed.

There would be a fairly consistent pattern of work below 30% time consumed under this scenario. However, these times are at the end of the shift and during shift change in the early morning when more officers are present.

Currently, North District patrol officers handle 72% of the time consumed by North District CFS workload. They receive substantial assistance from Bike Units and South and Middle District patrol units.

The next two charts show the parallel situation in the Middle District. The first chart shows the time available from Middle District patrol officers (including bicycle officers).

MIDDLE DISTRICT TIME AVAILABLE
ADJUSTED FOR MEAL BREAKS AND COURT TIME

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN	
0000		8.2	8.6	8.3	8.8	8.9	8.6	9.0
0100		5.7	5.5	5.4	5.7	5.9	5.6	5.7
0200		5.6	5.6	5.4	5.6	5.9	5.6	5.9
0300		5.6	5.6	5.4	5.5	5.7	5.6	5.9
0400		5.5	5.5	5.4	5.5	5.7	5.5	5.8
0500		5.6	5.5	5.4	5.4	5.7	5.6	5.9
0600		5.6	5.4	5.2	5.1	5.6	5.5	5.9
0700		8.6	8.2	7.9	7.9	8.4	8.5	8.8
0800		8.6	8.3	8.4	8.1	8.6	8.8	8.9
0900		5.9	5.8	5.9	5.6	5.6	5.9	5.9
1000		6.0	5.8	5.8	5.7	5.5	5.9	5.9
1100		5.9	5.8	5.4	5.2	4.9	5.7	5.8
1200		5.5	5.4	4.9	4.5	4.3	5.2	5.6
1300		4.9	4.9	4.5	4.3	4.5	4.5	4.8
1400		4.6	4.8	4.7	4.5	4.6	4.5	4.4
1500		8.4	8.0	8.4	8.4	8.1	8.0	7.5
1600		9.6	8.8	9.0	8.9	8.8	8.8	8.3
1700		6.7	6.0	6.2	6.0	6.0	6.2	5.7
1800		6.6	5.9	6.1	6.0	6.1	6.2	5.7
1900		5.9	5.3	5.5	5.6	6.0	6.0	5.7
2000		5.7	5.0	5.2	5.3	5.6	5.6	5.3
2100		5.6	5.0	5.2	5.3	5.4	5.5	4.9
2200		5.3	5.1	5.3	5.4	5.0	5.3	4.7
2300		8.4	8.0	8.5	8.5	8.3	8.2	7.6
							1045.2	

The total available time is 1,045.2 hours, for the average week. The next chart compares this time to the calls for service time to see the picture if Middle District patrol officers were to handle all of the Middle CFS workload.

MIDDLE DISTRICT: Middle District Patrol Time Consumed if all CFS work were handled by Middle Patrol Officers

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	49%	33%	35%	36%	36%	53%	42%
0100	55%	40%	40%	55%	44%		
0200	51%	38%	35%	51%	42%	73%	
0300	64%	34%	45%	39%	45%	75%	75%
0400	53%	42%	47%	**29%**	39%		71%
0500	40%	44%	40%	**29%**	30%	75%	63%
0600	42%	43%	35%	**28%**	**29%**	54%	73%
0700	37%	30%	30%	**23%**	**24%**	**27%**	38%
0800	49%	38%	44%	31%	30%	**23%**	39%
0900		70%	78%	63%	62%	45%	59%
1000		67%	68%	67%	61%	51%	66%
1100		65%	79%		77%	56%	70%
1200						66%	
1300							
1400							
1500	54%	54%	61%	60%	59%	45%	62%
1600	42%	52%	54%	49%	57%	40%	48%
1700	74%	72%	68%				62%
1800	57%	72%	69%	78%	78%	76%	60%
1900	58%	75%	75%	77%		78%	73%
2000	58%	77%	70%	70%	76%		
2100	55%		63%	69%			
2200	54%	56%		74%			
2300	30%	36%	35%	41%	52%	60%	50%

The primary problem in the Middle District would be mid-day, every day of the week. Middle District patrol officers would also have staffing problems on Saturday night and continuing into Sunday morning. The fairly frequent times with over 100% time consumed indicates that those periods would require help from units other than Middle District patrol officers. Under current conditions, Middle District patrol officers would have difficulty meeting Target 1 criteria. Overall, 59.5% of their available time would be consumed.

Several time blocks would fall below 30% time consumed, primarily in the early morning. This is most prevalent on Thursday morning.

Currently, Middle District patrol officers handle 63.2% of the time consumed by Middle District CFS workload. They receive substantial assistance from South and North District patrol units, and from sergeants.

The next two charts show the situation if South patrol officers were to handle all of the calls for service workload time in the South District. The first chart shows the time available from South District patrol officers (including bicycle officers).

SOUTH DISTRICT TIME AVAILABLE
ADJUSTED FOR MEAL BREAKS AND COURT TIME

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	12.7	11.8	11.7	11.6	13.1	14.0	14.3
0100	8.8	7.9	7.8	7.9	9.1	9.9	9.7
0200	8.8	7.9	7.8	8.0	9.1	10.0	10.0
0300	8.7	7.7	7.7	7.9	9.0	9.9	10.0
0400	8.5	7.4	7.6	7.9	8.9	9.9	10.0
0500	8.3	7.1	7.3	7.7	8.7	9.8	10.0
0600	6.5	5.7	5.2	6.0	6.4	8.7	8.9
0700	10.4	9.4	9.2	10.3	10.9	11.9	12.2
0800	11.6	11.1	11.5	11.8	12.0	12.3	12.2
0900	7.6	7.8	8.2	8.3	7.8	8.1	8.1
1000	7.7	7.8	8.2	8.1	7.8	8.1	8.1
1100	7.6	7.6	8.0	7.9	7.6	7.9	8.0
1200	6.6	6.9	7.2	7.6	7.2	7.4	7.5
1300	6.3	6.1	6.1	6.9	6.8	6.8	6.6
1400	6.0	5.8	6.1	6.0	6.4	6.6	6.3
1500	10.5	10.3	10.9	11.0	11.0	11.3	11.1
1600	11.9	11.2	11.8	12.3	12.2	12.4	11.9
1700	8.3	7.7	7.9	8.2	8.4	8.7	8.2
1800	8.2	7.6	7.6	7.9	8.2	8.6	8.1
1900	7.6	7.4	7.2	7.3	7.6	8.0	7.7
2000	6.8	6.9	7.2	7.3	7.3	7.8	7.3
2100	6.5	6.4	7.0	7.0	7.0	7.3	6.9
2200	6.8	6.1	6.5	6.8	6.7	7.1	7.0
2300	11.1	10.8	10.8	11.8	12.2	12.6	11.7
						1454.4	

South patrol officers average about 1,454 hours per week in available patrol time. The next chart compares this time to the calls for service time consumed in the South District to examine the extent to which South patrol officers might handle all of the South District CFS workload.

SOUTH DISTRICT: South District Patrol Time Consumed if all CFS work were handled by South Patrol Officers

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	57%	49%	50%	48%	51%	72%	53%
0100	72%	77%	61%	60%	66%		
0200	74%	67%	52%	56%	63%		
0300	77%	78%	51%	68%	63%		
0400		71%	59%	65%	59%		
0500		60%	61%	67%	62%		
0600		74%	67%	64%	73%		
0700	55%	45%	32%	25%	32%	60%	59%
0800	50%	42%	35%	30%	31%	43%	48%
0900		77%	62%	49%	51%	67%	79%
1000			76%	62%	52%	76%	79%
1100				75%	62%		
1200				66%	79%		
1300				80%			
1400							
1500	63%	65%	60%	54%	69%	69%	60%
1600	57%	61%	62%	59%	67%	66%	64%
1700	80%	76%					
1800		76%					
1900		77%					
2000		78%					
2100				70%			
2200				65%			
2300	54%	48%	45%	45%	67%	79%	61%

About the only times when South patrol officers would meet the target criteria is during the shift overlap times. There are frequent time blocks over 100% time consumed. South patrol officers would average 77.3% of their time consumed if they were assigned, under current conditions, to handle all South calls for service workload. No time blocks would be less than 30% time consumed.

Now, a substantial portion of the South calls for service workload is handled by bicycle officers. They are assigned to handle calls for service work, especially during times and in areas where it is difficult to respond via a patrol car. Bike units average about 102 hours a week on calls for service in the South District. This accounts for about 9% of the total South District CFS workload.

Other units that make a substantial contribution to handling the South District work load include RDA officers, sergeants, Middle District officers and detectives. Overall, South patrol officers handle 60% of the South District CFS Workload, which coupled with bike officers at 9%, accounts for 69% of the total South workload.

Under current conditions, the time of district assigned patrol officers is consumed as follows:

	South-Hours	Percent	Middle-Hours	Percent	North-Hours	Percent
Total time available	1454		1045		1024	
In-district CFS	676	46%	393	38%	381	37%
Out of district CFS	57	4%	51	5%	48	5%
Self-initiated activities	274	19%	175	17%	157	15%
Other patrol time	447	31%	426	41%	438	43%

This view is somewhat discordant with the analysis presented earlier. The response units in each district have significant amount of 'other patrol time', time not spent on calls for service or formally recorded self-initiated activities. During this patrol time, units may check buildings, check known hazards, and spend time in places that generate frequent calls for service. Some of this time may be spent when officers provide informal back up at disturbances that might escalate.

No district patrol group averages more than 50% of its time on calls for service (for South patrol, in-district CFS and out of district CFS total 50% of the available time).

In Miami Beach, other units substantially supplement the officers assigned to respond to calls for service. Special units assist with calls for service response and act as a ready reserve to fill patrol vacancies. Overtime seems to be readily available to fill patrol vacancies.

To further illustrate this point the next three charts show the average time consumed on calls for service by each district's patrol response officers.

ALL CFS WORK BY SOUTH UNITS
AVERAGE TIME CONSUMED

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	43.7%	35.5%	41.6%	31.5%	37.2%	46.5%	32.2%
0100	54.3%	58.6%	48.7%	32.3%	42.5%	59.1%	[redacted]
0200	51.2%	49.5%	40.3%	**26.8%**	39.6%	59.5%	78.2%
0300	56.9%	55.9%	40.8%	31.0%	43.1%	67.0%	[redacted]
0400	63.2%	53.6%	49.3%	**28.1%**	38.1%	65.8%	79.1%
0500	64.7%	45.8%	46.4%	**28.3%**	42.4%	73.0%	77.3%
0600	65.2%	54.4%	45.9%	**26.5%**	47.2%	65.4%	68.6%
0700	39.8%	32.0%	**23.1%**	**10.5%**	**21.2%**	34.5%	35.5%
0800	38.4%	**29.0%**	**25.8%**	**19.4%**	**22.9%**	**25.1%**	**27.9%**
0900	62.6%	49.8%	45.7%	39.8%	40.0%	42.5%	48.5%
1000	57.6%	51.2%	57.0%	48.7%	40.0%	48.3%	50.1%
1100	59.8%	57.6%	57.4%	55.1%	47.9%	54.3%	60.0%
1200	70.7%	65.5%	59.2%	50.9%	57.4%	64.1%	68.3%
1300	[redacted]	73.8%	68.6%	59.4%	64.3%	66.1%	77.8%
1400	77.1%	74.7%	62.6%	57.7%	76.3%	66.3%	76.9%
1500	40.4%	41.5%	40.9%	34.6%	43.8%	40.4%	38.7%
1600	39.4%	38.1%	38.4%	33.3%	42.6%	39.0%	46.2%
1700	58.6%	52.5%	54.5%	57.1%	69.0%	66.2%	69.9%
1800	66.5%	55.4%	53.5%	52.4%	67.0%	66.5%	65.4%
1900	66.9%	60.8%	57.5%	53.8%	69.5%	67.0%	66.7%
2000	60.1%	56.0%	52.0%	48.1%	75.7%	67.9%	59.7%
2100	56.0%	58.7%	53.0%	44.8%	67.4%	75.9%	58.5%
2200	60.9%	61.4%	54.6%	47.7%	64.6%	77.0%	61.9%
2300	37.3%	37.7%	31.6%	34.9%	42.9%	50.8%	41.6%

South district patrol officers exceed the 80% threshold only three times during the course of the week. The time consumed by call for service falls below 30% during the morning shift change and on early Thursday.

The middle district chart is shown below.

ALL CFS WORK BY MIDDLE UNITS
AVERAGE TIME CONSUMED

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	35.2%	**26.3%**	**29.2%**	**28.7%**	**22.8%**	38.0%	31.6%
0100	39.3%	37.7%	31.3%	53.5%	32.2%	58.5%	[redacted]
0200	36.1%	33.2%	**24.5%**	50.0%	30.8%	47.2%	60.7%
0300	41.3%	**27.9%**	**27.6%**	41.2%	33.8%	51.4%	55.4%
0400	36.2%	**28.0%**	**29.3%**	30.3%	**27.3%**	55.6%	52.0%
0500	**29.7%**	**29.4%**	**26.8%**	33.2%	**20.8%**	50.4%	51.7%
0600	**29.1%**	**29.1%**	**21.3%**	30.2%	**21.8%**	41.3%	54.4%
0700	**25.4%**	**20.1%**	**19.6%**	**21.6%**	**17.0%**	**21.2%**	**28.7%**
0800	31.6%	**26.8%**	**28.6%**	**27.1%**	**23.2%**	**20.4%**	31.6%
0900	57.5%	50.1%	51.6%	51.3%	49.0%	37.8%	50.3%
1000	60.5%	52.1%	45.4%	46.2%	45.7%	40.9%	54.5%
1100	60.4%	52.8%	50.0%	56.0%	56.5%	45.7%	59.9%
1200	75.2%	61.3%	52.5%	63.9%	74.2%	50.5%	71.8%
1300	[redacted]	61.2%	59.9%	70.4%	71.9%	67.1%	[redacted]
1400	78.6%	60.4%	62.0%	73.7%	71.5%	70.3%	[redacted]
1500	38.0%	36.9%	34.6%	41.3%	39.9%	36.4%	49.1%
1600	32.6%	38.8%	**28.4%**	33.7%	35.3%	30.2%	37.7%
1700	56.8%	52.5%	39.5%	49.1%	54.8%	54.2%	51.9%
1800	42.8%	49.5%	42.0%	47.8%	50.6%	48.9%	48.3%
1900	44.7%	54.0%	43.1%	46.5%	51.2%	51.5%	58.5%
2000	45.1%	55.2%	37.5%	39.2%	49.6%	61.1%	53.0%
2100	44.3%	47.7%	33.3%	37.1%	50.1%	60.4%	61.7%
2200	39.1%	40.8%	35.3%	39.4%	51.6%	65.0%	54.7%
2300	**24.1%**	**29.2%**	**21.3%**	**21.9%**	32.2%	45.1%	35.8%

Middle district patrol officers exceed the 80% time consumed target only four times during the average week. The amount of their time consumed by calls for service falls below 30% 35 time during the average week. These workload low spots are at morning and evening shift changes and during early mornings on Tuesday, Wednesday, and Friday.

The final chart of this sequence, that for North officers, is displayed below.

ALL CFS WORK BY NORTH UNITS
AVERAGE TIME CONSUMED

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	30.4%	34.1%	34.5%	**29.7%**	36.3%	43.2%	**29.8%**
0100	41.6%	45.6%	43.5%	39.5%	44.0%	60.6%	71.0%
0200	40.8%	46.0%	39.3%	32.7%	37.8%	54.8%	53.0%
0300	36.7%	41.2%	35.9%	37.0%	37.3%	47.3%	47.6%
0400	35.0%	**28.7%**	**25.3%**	34.0%	**29.3%**	44.7%	39.3%
0500	**29.5%**	**24.5%**	**18.1%**	**24.8%**	**24.6%**	48.9%	39.5%
0600	34.1%	**23.2%**	**27.4%**	**19.9%**	**22.9%**	46.5%	34.0%
0700	**26.7%**	**16.9%**	**25.0%**	**17.6%**	**24.9%**	30.1%	**19.4%**
0800	32.1%	**19.8%**	30.0%	**20.4%**	35.0%	30.5%	**24.6%**
0900	45.4%	32.7%	44.1%	35.0%	56.2%	41.0%	40.0%
1000	41.1%	36.4%	40.9%	35.5%	46.5%	41.9%	47.6%
1100	38.3%	41.0%	42.3%	32.1%	44.8%	51.9%	51.4%
1200	49.2%	49.6%	45.6%	37.9%	41.5%	58.3%	54.4%
1300	52.2%	51.1%	47.4%	43.1%	52.7%	58.7%	54.5%
1400	48.5%	47.0%	43.3%	41.6%	53.9%	54.7%	58.8%
1500	**29.2%**	**28.5%**	**27.7%**	**23.3%**	33.9%	31.9%	37.3%
1600	**27.4%**	**27.5%**	34.9%	31.1%	34.1%	31.9%	35.6%
1700	52.6%	49.1%	62.8%	62.0%	62.9%	56.0%	60.3%
1800	48.5%	54.9%	59.0%	61.8%	56.7%	59.6%	63.5%
1900	50.7%	52.6%	51.8%	61.6%	51.1%	60.3%	61.0%
2000	55.9%	54.8%	57.2%	60.3%	57.8%	63.9%	63.6%
2100	57.3%	59.9%	61.6%	65.0%	65.8%	72.6%	62.7%
2200	57.2%	48.0%	63.4%	75.9%	74.8%	76.7%	66.3%
2300	32.8%	**26.0%**	32.5%	34.7%	45.9%	44.1%	33.1%

There are no times during the week that the North officers exceed the 80% target. Their CFS workload falls below 30% time consumed 30 times. These times include early mornings Tuesday through Friday and during afternoon shift changes Monday through Thursday.

The analysis in this section shows that there is a significant amount of calls for service work in Miami Beach that is being performed by units other than those assigned to this task. In addition, it shows that district assigned patrol response officers rarely exceed a calls for service workload level of 80% of the available time consumed. Compared to the target criteria, patrol response officers meet almost all of the targets, for almost all three targets with the exception of handling 80%-90% of the calls for service workload in their assigned district. South units handle 60% of the CFS workload in the South, Middle units handle 63% of the Middle CFS workload, and North units handle 72% of the North District CFS workload.

The next section explores how the City of Miami Beach might optimize patrol staffing to better match patrol resources to the work that needs to be performed.

OPTIMUM STAFFING MODELS FOR MIAMI BEACH

The starting point in developing optimum staffing models for patrol response in the Miami Beach Police Department was the average weekly work load compiled from the dispatch data June 1, 2004 through May 31, 2005. Because of differences from district to district, the models were applied to each of the three districts.

There are numerous scheduling and days off patterns used by law enforcement agencies. The common element in most of them is that they are designed to comply with the Fair Labor Standards Act (FLSA) that specifies that law enforcement officers may work 171 hours in a 28 day period before becoming eligible for overtime payment.

Most shift lengths are designed around 8.5, 10, or 12 hour days with a variety of days on, days off patterns. Each shift pattern has strengths and weaknesses. The 8.5 hour schedule provides little overlap between shifts and officers have only two consecutive days off. The 10 hour schedule provides for substantial overlap and allows three consecutive days off but may require more officers than the 8.5 hour shift. The 12 hour schedule may reduce the number of officers needed but often does not match well workload peaks and valleys and tends to result in increased officer fatigue. This analysis uses the following common schedules:

- Five 8.5 hour work days followed by two days off (170 hours per 28 days),
- Four 10 hour work days followed by three days off (160 hours per 28 days),
- Two 12 hour work days followed by two days off (168 hours per 28 days).

A common set of assumptions was used for each model. They included the following:

- Based on the calls for service analysis the average weekly calls for service workload is
  - 1123.7 hours in the South District,
  - 622.4 hours in the Middle District, and
  - 534.1 hours in the North District.

- A show-up rate of 75% is used in the models. As described earlier in this report, with overtime, the current show-up rate is 70.1%. Without overtime, the rate is 60.1%. These current rates are low compared to more typical rates of 75% to 85% in similar department. In the implementation section of this report, we offer recommendations to increase the base show-up rate so that overall the department would have a 75% show-up rate more in keeping with industry averages. As the show-up rate lowers more officers need to be assigned, more officers need to be pulled from special units to fill patrol vacancies or more overtime needs to be used. A higher rate, on the other hand, requires fewer assigned officers. As is discussed earlier, show-up rates over 80% are more typical in departments with young patrol forces and in jurisdictions without collective bargaining. Therefore, a target rate of 75% for Miami Beach is a reasonable goal.

- Each of the three Targets discussed earlier offered a range of time-consumed averages for non-peak and peaks hours. To develop the optimum models a mid-range fixed point of 60% is used. This recognizes that, because of fluctuations in the workload, the time consumed will be higher than 60% during peak periods and lower than 60% during off-peak periods. Over the course of the average week, patrol response officers should be expected to devote 60% of their available time to calls for service. This is a blend of peak and non-peak time. It also takes into account the wide variation in workload in Miami Beach, especially in the south District. Similar agencies lack the pronounced variations between peaks and low points found in Miami Beach. A staffing model that seeks to match precisely the number of officers to time-consumed targets would vary the number of officers each hour, or used a split shift approach to strive for the best matches. Project staff has a very broad range of experience with U.S. police forces and could cite only one jurisdiction that used a split shift approach.

From these factors, to handle the calls for service workload at an average of 60% time consumed the following number of patrol officers would be needed:

Optimal Staffing Needs	Model Projections	Current Assignment
South District	63	67
Middle District	35	36
North District	30	38
Total	128	149*

*This includes the eight bicycle officers that are assigned to shifts rather than districts. Depending on need, they may work in any district although they most frequently work in the South District, with secondary assignments in the North.

The iterations needed to meet the requirements of each model may alter the number of officers required in each district. Variations in workload create circumstances that make it impractical to alter the number of assigned officers each hour of the day. So, some imbalances occur. There is less work that needs to be performed at some times during the shifts than at other times. Acceptable staffing needed for peak periods may result in officers having low levels of time consumed during other times. These may be good times for directed patrol and increases in self-initiated activity. The results for each staffing model are presented below.

TOTAL HF	1123.7
At 75% show-up, 30 hrs	37.5
At 60% time consumed	62.4
Rounded to 63	63
At 63 times 30 hours per week	1890
Average time consumed would	59.5%

WING-UP)					
8	8	7	10	20	22
10	10	8	10	11	14
10	10	12	12	14	12
			TOTAL		240
			HOURS=	8	1920
					64

	WED	THU	FRI	SAT	SUN
72.1%	73.3%	79.5%	66.7%	50.3%	34.8%
75.8%	59.8%	67.1%	59.8%	45.3%	57.8%
66.5%	50.8%	63.6%	57.2%	48.2%	54.9%
74.4%	49.2%	76.4%	57.2%	57.3%	67.4%
66.3%	55.4%	73.6%	52.3%	62.0%	66.4%
63.5%	55.2%	73.6%	53.8%	66.4%	61.7%
63.1%	43.8%	55.5%	46.8%	50.9%	47.0%
62.7%	37.1%	36.7%	35.0%	35.7%	32.7%
46.5%	40.0%	44.0%	37.2%	47.9%	41.7%
60.0%	50.5%	51.0%	40.3%	48.9%	45.5%
69.2%	63.0%	63.1%	40.7%	56.1%	45.7%
71.7%	66.2%	74.4%	47.3%	58.8%	53.6%
69.3%	62.7%	62.3%	57.0%	62.1%	59.9%
66.2%	59.5%	68.3%	66.3%	64.4%	61.8%
67.0%	55.5%	63.8%	75.8%	65.6%	60.6%
67.3%	66.0%	73.5%	76.2%	70.9%	47.4%
68.7%	72.7%	60.7%	68.3%	58.3%	63.8%
68.3%	69.7%	66.9%	76.7%	63.3%	67.5%
67.7%	67.7%	57.8%	71.3%	64.0%	65.3%
66.8%	69.8%	55.1%	64.0%	63.2%	70.6%
63.8%	61.8%	49.4%	69.0%	67.7%	57.9%
62.7%	62.2%	40.7%	60.4%	68.8%	56.9%
60.2%	54.7%	36.5%	58.3%	67.7%	58.9%
51.5%	48.7%	44.0%	68.2%	71.7%	59.7%

TOTAL HF	622.4
At 75% show-up, 30 hrs	20.7
At 60% time consumed	34.6
Rounded to 35	35
At 35 times 30 hours per week	1050
Average time consumed would	59.3%

SHIFTS (OFFICERS SHOWING-UP)							
MIDNIGHT	6	5	5	5	5	8	8
DAY	8	7	7	7	7	5	7
AFTERNO	6	7	6	7	7	8	8
M=2330-0800					TOTAL		139
D=0730-1600					HOURS=	8	1112
A=1330-0000							37.1

MIDDLE

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	67.2%	57.0%	57.7%	63.0%	64.7%	56.5%	47.5%
0100	52.5%	44.7%	44.0%	62.7%	52.3%	59.8%	74.4%
0200	47.8%	42.3%	37.7%	57.0%	49.7%	50.6%	64.2%
0300	59.4%	37.3%	48.0%	43.0%	51.0%	52.1%	55.0%
0400	48.3%	46.0%	50.0%	31.3%	44.0%	58.3%	51.7%
0500	36.9%	49.0%	43.3%	31.3%	34.3%	51.9%	46.0%
0600	39.2%	46.3%	36.7%	**28.7%**	32.3%	36.9%	53.3%
0700	52.8%	50.0%	47.7%	36.7%	40.3%	**28.3%**	41.5%
0800	53.1%	45.2%	52.6%	36.0%	37.1%	40.0%	49.3%
0900	61.9%	57.9%	65.5%	50.0%	49.5%	53.7%	49.8%
1000	64.8%	55.2%	56.7%	54.0%	47.4%	60.7%	55.7%
1100	59.6%	53.6%	61.2%	61.2%	53.6%	64.0%	58.1%
1200	77.1%	62.9%	56.9%	64.8%	61.7%	68.7%	65.5%
1300	77.3%	58.3%	62.4%	67.1%	69.3%	75.0%	76.2%
1400	69.4%	59.3%	71.2%	68.6%	69.8%	76.3%	75.0%
1500	57.1%	62.4%	73.1%	71.4%	68.1%	72.0%	66.2%
1600	66.9%	65.0%	**81.7%**	62.9%	71.7%	43.5%	50.2%
1700	**82.5%**	61.9%	70.3%	69.5%	71.7%	61.9%	44.8%
1800	62.8%	61.2%	70.0%	67.1%	67.1%	58.3%	42.9%
1900	57.5%	56.9%	67.8%	61.9%	69.5%	58.1%	52.1%
2000	55.0%	54.8%	61.1%	53.3%	61.0%	59.8%	41.3%
2100	50.8%	46.2%	54.4%	52.4%	62.4%	61.0%	45.2%
2200	47.5%	40.7%	52.2%	57.1%	64.8%	65.2%	39.6%
2300	41.7%	41.7%	49.4%	49.0%	61.7%	61.9%	47.5%

TC

At 75% show-up, 30 hrs	
At 60% time consumed	
Rounded to 30	
At 30 times 30 hours per	
Average time consumed	

SHIFTS (OFFICERS SHOWING-UP)					
MIDNIGHT	5	5	5	5	5
DAY	6	5	6	6	6
AFTERNO	6	6	6	6	7
M=2330-0800					TC
D=0730-1600				HOURS=	
A=1330-0000					

NORTH

HOUR	MON	TUE	WED	THU	FRI	SA
0000	57.3%	66.0%	65.3%	57.3%	65.3%	
0100	49.7%	60.3%	48.3%	50.0%	58.3%	
0200	54.3%	62.3%	43.0%	43.3%	46.7%	
0300	49.0%	52.7%	38.0%	48.7%	47.3%	
0400	47.7%	36.7%	**25.7%**	43.7%	36.3%	
0500	43.3%	**28.7%**	**19.0%**	31.0%	31.7%	
0600	46.3%	**25.0%**	**27.0%**	**25.0%**	**26.3%**	
0700	56.7%	**29.0%**	39.3%	35.7%	43.3%	
0800	57.8%	35.3%	48.6%	41.4%	57.5%	
0900	63.3%	45.3%	55.6%	53.9%	62.2%	
1000	59.7%	55.3%	54.4%	58.1%	54.7%	
1100	53.6%	63.7%	52.5%	51.1%	50.8%	
1200	58.9%	62.0%	50.6%	56.9%	46.4%	
1300	54.7%	54.0%	53.1%	61.7%	51.9%	
1400	53.6%	61.7%	52.5%	67.2%	56.4%	
1500	54.2%	70.0%	59.2%	56.9%	65.0%	
1600	49.4%	52.8%	71.7%	60.8%	54.8%	
1700	66.4%	63.3%	71.4%	63.3%	68.1%	
1800	65.6%	67.5%	66.7%	62.2%	61.2%	
1900	68.1%	67.2%	58.1%	62.8%	53.8%	
2000	71.7%	63.1%	61.9%	60.6%	60.0%	
2100	64.4%	65.8%	59.4%	51.7%	62.9%	
2200	62.2%	45.8%	61.1%	53.6%	65.2%	
2300	57.5%	43.1%	53.3%	48.1%	63.8%	

)EL USING 8.5 HOUR SHIFTS WITH FIVE DAYS ON DUTY FOLLOWED BY TWO DAYS OFF DUTY

ɜ model uses a shift length of 8 ½ hours so that there is time for a roll call/briefing before the on-coming shift goes onto ıllows up to seven different days off patterns so that a different number of officers can be scheduled for each day of the ɔ workload variations. Over the three districts, there are only two times that the time consumed exceeds 80%--these led. There are 12 times when workload falls below 30%. The assigned patrol officers are able to handle 100% of the ll three districts. The total number of officers needed would be 135 compared to the current 149 assigned. This exceeds ːt number of 128 because of the need to "fit" personnel resources to workload variations.

TOTAL HF	1123.7
At 75% show-up, 30 hrs	37.45722
At 60% time consumed	62.4287
Rounded	63
Times 30 hours per week	1890
Avg time consumed would =	59.5%

6	7	10	15	17	8
10	9	8	9	10	12
9	9	9	11	12	12
		2	2	2	2
			TOTAL		210
			HOURS=	10	2100
					70

	WED	THU	FRI	SAT	SUN
9%	39.1%	34.8%	31.7%	36.0%	[redacted]
7%	31.9%	[redacted]		32.4%	41.0%
5%	67.8%	63.6%	47.6%	56.7%	63.6%
4%	65.6%	76.4%	47.6%	67.4%	78.1%
3%	73.9%	73.6%	43.6%	72.9%	76.8%
5%	73.6%	73.6%	44.9%	78.1%	71.5%
1%	58.3%	55.5%	46.8%	67.9%	60.9%
2%	33.0%	32.1%	38.9%	71.3%	60.0%
5%	44.4%	44.0%	41.3%	52.7%	48.6%
0%	56.1%	51.0%	44.8%	53.8%	53.1%
2%	70.0%	63.1%	45.2%	61.7%	53.3%
7%	73.5%	74.4%	52.6%	64.7%	62.5%
3%	69.6%	62.3%	63.3%	68.3%	69.9%
2%	66.1%	68.3%	73.7%	70.8%	72.1%
0%	61.7%	63.8%	[redacted]	72.2%	70.7%
3%	73.3%	73.5%		78.0%	55.3%
3%	[redacted]		74.5%	68.1%	63.8%
8%	77.4%	[redacted]		73.9%	67.5%
1%	75.2%	77.0%	77.7%	74.7%	65.3%
1%	77.6%	73.5%	69.8%	73.8%	70.6%
8%	68.7%	53.9%	63.7%	67.7%	49.6%
9%	49.7%	30.5%	35.4%	42.8%	38.0%
4%	34.2%	[redacted]		30.6%	32.1%
3%	30.4%			32.4%	32.6%

TOTAL HF	622.4
At 75% show-up, 30 hrs	20.745
At 60% time consumed	34.575
Rounded	35
times 30 hours per week	1050
Avg time consumed would =	59.3%

MIDNIGHT	5	5	5	5	6	6	5
DAY	7	6	7	7	7	7	6
AFTERNC	6	5	6	6	6	6	6
OVERLAY				0	0	0	0
M2100-0700						TOTAL	125
D0630-1630						HOURS=	10 1250
M1600-0200							42

MIDDLE HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	36.7%	[redacted]				37.6%	31.7%
0100	[redacted]					39.9%	49.6%
0200	57.3%	42.3%	37.7%	57.0%	49.7%	67.5%	[redacted]
0300	71.3%	37.3%	48.0%	43.0%	51.0%	69.4%	73.3%
0400	58.0%	46.0%	50.0%	31.3%	44.0%	77.8%	68.9%
0500	44.3%	49.0%	43.3%	31.3%	34.3%	69.2%	61.4%
0600	47.0%	46.3%	36.7%	[redacted]	32.3%	49.2%	71.1%
0700	45.2%	41.7%	34.0%	[redacted]		32.4%	55.3%
0800	60.7%	52.8%	52.6%	36.0%	37.1%	[redacted]	57.5%
0900	70.7%	67.5%	65.5%	50.0%	49.5%	38.3%	58.1%
1000	74.0%	64.4%	56.7%	54.0%	47.4%	43.3%	65.0%
1100	68.1%	62.5%	61.2%	61.2%	53.6%	45.7%	67.8%
1200	[redacted]	73.3%	56.9%	64.8%	61.7%	49.0%	76.4%
1300		68.1%	62.4%	67.1%	69.3%	53.6%	[redacted]
1400	79.3%	69.2%	71.2%	68.6%	69.8%	54.5%	
1500	65.2%	72.8%	73.1%	71.4%	68.1%	51.4%	77.2%
1600	66.9%	[redacted]		73.3%	[redacted]	58.1%	66.9%
1700	[redacted]		70.3%	[redacted]			59.7%
1800	62.8%	[redacted]	70.0%	78.3%	78.3%	77.8%	57.2%
1900	57.5%	79.7%	67.8%	72.2%	[redacted]	77.5%	69.4%
2000	55.0%	76.7%	61.1%	62.2%	71.1%	79.7%	55.0%
2100	35.9%	43.1%	38.4%	43.1%	48.5%	54.3%	42.5%
2200	[redacted]			36.4%	37.8%	43.5%	[redacted]
2300				31.2%	36.0%	41.3%	34.5%

TOTAL HF	534.1
At 75% show-up, 30 hrs	17.80222
At 60% time consumed	29.67037
Rounded	30
times 30 hours per week	900
Avg time consumed would =	59.3%

MIDNIGHT	5	4	4	4	5	5	5
DAY	5	5	5	5	5	5	5
AFTERNC	5	5	6	5	6	6	6
OVERLAY				0	0	0	0
M2100-0700						TOTAL	106
D0630-1630						HOURS=	10 1060
M1600-0200							36

NORTH HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	[redacted]	33.0%	36.3%	[redacted]	36.3%	38.6%	[redacted]
0100		30.2%	[redacted]		32.4%	33.5%	43.6%
0200	54.3%	62.3%	53.8%	54.2%	58.3%	71.7%	76.3%
0300	49.0%	52.7%	47.5%	60.8%	59.2%	64.7%	67.7%
0400	47.7%	36.7%	32.1%	54.6%	45.4%	59.3%	51.0%
0500	43.3%	[redacted]		38.8%	39.6%	64.0%	50.7%
0600	46.3%	[redacted]	33.8%	31.3%	32.9%	64.3%	41.3%
0700	56.7%	[redacted]	39.3%	35.7%	43.3%	60.0%	37.0%
0800	69.3%	35.3%	58.3%	49.7%	69.0%	61.3%	46.0%
0900	76.0%	45.3%	66.7%	64.7%	74.7%	56.3%	52.3%
1000	71.7%	55.3%	65.3%	69.7%	65.7%	61.7%	61.0%
1100	64.3%	63.7%	63.0%	61.3%	61.0%	73.7%	66.3%
1200	70.7%	62.0%	60.7%	68.3%	55.7%	77.3%	65.7%
1300	65.7%	54.0%	63.7%	74.0%	62.3%	68.3%	57.7%
1400	64.3%	61.7%	63.0%	[redacted]	67.7%	63.0%	55.7%
1500	65.0%	70.0%	71.0%	68.3%	78.0%	62.7%	64.3%
1600	59.3%	63.3%	71.7%	73.0%	63.9%	56.7%	58.6%
1700	79.7%	76.0%	71.4%	76.0%	79.4%	66.9%	74.2%
1800	78.7%	[redacted]		66.7%	74.7%	71.4%	68.1%
1900	[redacted]			58.1%	75.3%	62.8%	65.8%
2000		75.7%	61.9%	72.7%	70.0%	67.8%	74.4%
2100	51.6%	56.4%	44.6%	44.3%	51.8%	46.7%	76.9%
2200	37.3%	30.6%	36.7%	35.7%	41.5%	39.7%	49.0%
2300	34.5%	[redacted]	32.0%	32.0%	40.6%	41.2%	34.2%

MODEL USING FOUR TEN HOUR DAYS FOLLOWED BY THREE DAYS OFF

shift provides 30 hours of coverage for the 24 hour day allowing for up to six hours of double coverage. The model overlap between shifts for roll call/briefings and then five hours of overlap coverage from 2100 hours until 0200. Also in trict an overlay shift is used Thursday through Sunday from 2000-0600. This structure generally solves the current ems after midnight but by shifting resources to cover that period, other times have fewer personnel resources. Over the , there are 29 time blocks over 80% time consumed but none of them are longer than three hours in duration. There are s with time consumed under 30%. This model requires a total of 148 officers. one less than currently assigned.

					TOTAL HF	1123.7
					At 75% show-up, 30 hrs	37.5
					At 60% time consumed	62.4
					Rounded	63
					Rounded times 30 hours per week =	1890
					Average time consumed =	59.5%
15	15	15	15	15	15	
10	10	10	10	10	10	
					TOTAL	175
				HOURS=	12	2100
						70

:	WED	THU	FRI	SAT	SUN
38.4%	39.1%	37.1%	44.4%	67.1%	51.1%
40.4%	31.9%	31.3%	39.9%	60.4%	
35.4%	**27.1%**	**29.7%**	38.1%	64.2%	
39.7%	**26.2%**	35.7%	38.1%	76.3%	
35.3%	**29.6%**	34.3%	34.9%		
28.6%	**29.4%**	34.3%	35.9%		
28.3%	**23.3%**	**25.9%**	31.2%	67.9%	69.0%
42.2%	**29.7%**	**25.7%**	35.0%	71.3%	72.0%
46.5%	40.0%	35.2%	37.2%	52.7%	58.3%
60.0%	50.5%	40.8%	40.3%	53.8%	63.7%
69.2%	63.0%	50.5%	40.7%	61.7%	64.0%
71.7%	66.2%	59.5%	47.3%	64.7%	75.0%
69.3%	62.7%	49.8%	57.0%	68.3%	
66.2%	59.5%	54.7%	66.3%	70.8%	
67.0%	55.5%	51.0%	75.8%	72.2%	
67.3%	66.0%	58.8%	76.2%	78.0%	66.3%
68.7%	72.7%	72.8%			76.5%
58.3%	69.7%				
57.7%	67.7%	69.3%			78.3%
37.9%	46.6%	44.1%	51.2%	59.0%	56.4%
35.9%	41.2%	39.6%	55.2%	63.2%	46.3%
35.1%	41.4%	32.6%	48.3%	64.2%	45.6%
33.4%	36.4%	**29.2%**	46.7%	63.2%	47.1%
34.3%	32.4%	35.2%	54.6%	66.9%	47.8%

					TOTAL HF	622.4	
					At 75% show-up, 30 hrs	20.7	
					At 60% time consumed	34.6	
					Rounded	35	
					Rounded times 30 hours per week =	1050	
					Average time consumed =	59.3%	
MIDNIGHT	6	6	6	6	6	6	6
DAY	7	7	7	7	7	7	7
M1900-0700						TOTAL	91
D0700-1900					HOURS=	12	1092
							36.4

MIDDLE HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	67.2%	47.5%	48.1%	52.5%	53.9%	75.3%	63.3%
0100	52.5%	37.2%	36.7%	52.2%	43.6%	79.7%	
0200	47.8%	35.3%	31.4%	47.5%	41.4%	67.5%	
0300	59.4%	31.1%	40.0%	35.8%	42.5%	69.4%	73.3%
0400	48.3%	38.3%	41.7%	**26.1%**	36.7%	77.8%	68.9%
0500	36.9%	40.8%	36.1%	**26.1%**	**28.6%**	69.2%	61.4%
0600	39.2%	38.6%	30.6%	**23.9%**	**26.9%**	49.2%	71.1%
0700	45.2%	35.7%	34.0%	**26.2%**	**28.8%**	32.4%	47.4%
0800	60.7%	45.2%	52.6%	36.0%	37.1%	**28.6%**	49.3%
0900	70.7%	57.9%	65.5%	50.0%	49.5%	38.3%	49.8%
1000	74.0%	55.2%	56.7%	54.0%	47.4%	43.3%	55.7%
1100	68.1%	53.6%	61.2%	61.2%	53.6%	45.7%	58.1%
1200		62.9%	56.9%	64.8%	61.7%	49.0%	65.5%
1300		58.3%	62.4%	67.1%	69.3%	53.6%	76.2%
1400	79.3%	59.3%	71.2%	68.6%	69.8%	54.5%	75.0%
1500	65.2%	62.4%	73.1%	71.4%	68.1%	51.4%	66.2%
1600	57.4%	65.0%	70.0%	62.9%	71.7%	49.8%	57.4%
1700	70.7%	61.9%	60.2%	69.5%	71.7%	70.7%	51.2%
1800	53.8%	61.2%	60.0%	67.1%	67.1%	66.7%	49.0%
1900	57.5%	66.4%	67.8%	72.2%		77.5%	69.4%
2000	55.0%	63.9%	61.1%	62.2%	71.1%	79.7%	55.0%
2100	50.8%	53.9%	54.4%	61.1%	72.8%		60.3%
2200	47.5%	47.5%	52.2%	66.7%	75.6%		52.8%
2300	41.7%	48.6%	49.4%	57.2%	71.9%		63.3%

						At 75% show-up, 30	
						At 60% time consum	
						Rounded	
						Rounded times 30 hours per we	
						Average time consur	
MIDNIGHT	6	6	6	6	6		
DAY	6	6	6	6	6		
M1900-0700							
D0700-1900						HOURS=	

NORTH HOUR	MON	TUE	WED	THU	FRI
0000	47.8%	55.0%	54.4%	47.8%	54.4%
0100	41.4%	50.3%	40.3%	41.7%	48.6%
0200	45.3%	51.9%	35.8%	36.1%	38.9%
0300	40.8%	43.9%	31.7%	40.6%	39.4%
0400	39.7%	30.6%	**21.4%**	36.4%	30.3%
0500	36.1%	**23.9%**	**15.8%**	**25.8%**	**26.4%**
0600	38.6%	**20.8%**	**22.5%**	**20.8%**	**21.9%**
0700	47.2%	**24.2%**	32.8%	**29.7%**	36.1%
0800	57.8%	**29.4%**	48.6%	41.4%	57.5%
0900	63.3%	37.8%	55.6%	53.9%	62.2%
1000	59.7%	46.1%	54.4%	58.1%	54.7%
1100	53.6%	53.1%	52.5%	51.1%	50.8%
1200	58.9%	51.7%	50.6%	56.9%	46.4%
1300	54.7%	45.0%	53.1%	61.7%	51.9%
1400	53.6%	51.4%	52.5%	67.2%	56.4%
1500	54.2%	58.3%	59.2%	56.9%	65.0%
1600	49.4%	52.8%	71.7%	60.8%	63.9%
1700	66.4%	63.3%	71.4%	63.3%	79.4%
1800	65.6%	67.5%	66.7%	62.2%	71.4%
1900	68.1%	67.2%	58.1%	62.8%	62.8%
2000	71.7%	63.1%	61.9%	60.6%	70.0%
2100	64.4%	65.8%	59.4%	51.7%	73.3%
2200	62.2%	45.8%	61.1%	53.6%	76.1%
2300	57.5%	43.1%	53.3%	48.1%	74.4%

MODEL USING TWO 12 HOUR SHIFTS FOLLOWED BY TWO DAYS OFF

2 hour shift within FLSA limits requires that officers work 14 shifts in the 28 day period for a total of 168 hours. To a two day on, two off sequence is used. However, this sequence requires that each shift have the same number of

day. Consequently the shift cannot take into account variations by day. The length of the shift makes adjustments to ɔns in workload impossible, Having enough officers on the shift to match the busiest periods means that officers will not during periods of lower average workload. There is no overlap available here so some departments have split reporting hey retain some coverage during shift changes. This model would require 137 officers, 12 less than are currently would result in 29 time blocks over 80% including a five hour streak early Sunday morning in the South District. There ɔlocks with an average time consumed under 30% with this schedule.

The tables below summarize the three staffing models.

Patrol Officers Needed; "Optimal" Models					
District	Assignment	Projections	8.5 Hour	10 Hour	12 Hour
South District	67	63	64	70	70
Middle District	36	35	37	42	33
North District	38	30	34	36	34
Total	149*	128	135	148	137

*Includes bicycle officers.

Average Time Consumed by CFS: "Optimal" Models			
District	8.5 Hour	10 Hour	12 Hour
South District	58.5%	53.8%	53.5%
Middle District	56.0%	49.8%	57.0%
North District	52.6%	50.4%	53.0%

High/Low Average CFS Time Consumed Blocks "Optimal" Models			
Schedule	8.5 Hour	10 Hour	12 Hour
80% Time Consumed or Higher	**2**	**29**	**29**
30% Time Consumed or Lower	**12**	**40**	**32**

Each of the three models provides sufficient resources for the assigned patrol officers to handle all of their district's calls for service workload thereby minimizing the need for out-of-district response. Some out-of-district response will still occur since the models are based on averages. At some times calls for service response will require help from units other than those assigned to district response.

There are trade-offs among the three schedules among the number of officers needed, the average time consumed, and the "extremes" when workload is projected to average 80% or greater and 30% or lower.

Of the three models, the 10 hour model produced the lowest overall time consumed averages but require the greatest number of officers. To produce the same overall district time consumed averages with the 8.5 hour and 12 hour models, the same number of officers per district would be needed as with the 10 hour model.

Only in the South District, with 12 hour shifts, is there a period when officers average more than 70%-80% of their time on calls for service for longer than four hours.

However, without significant additions of officers, none of these models provides for the department to consistently meet the target criteria for off-peak time CFS time, especially during "prime time' community policing Monday through Thursday from noon to 9:00 pm. Target 2 sought community policing time at no more than 40%-50% CFS time during off-peak periods and Target 3 sought no more than 35%-45% CFS time during off-peak periods. Each model shows average time consumed figures generally averaging

60% or higher. Getting to the Target staffing percents would therefore require an addition of at least 10 to 15% more officers during those time periods in order to meet the CFS workload demand and provide patrol based community policing services during community policing "prime time".

The city and department are continuing to implement community policing through the use of RDA units and PSS personnel. Three PSS positions are being added in the Middle District and three are being added in the North District. Their specific role is to substantially increase the number of community contacts. In addition, RDA officers in the City Center / Convention Center RDA will continue their community policing emphasis. Although the South Pointe Area is no longer an RDA, officers assigned to the area will still use a community policing approach in the area. The use of the dedicated community policing PSS personnel and RDA officers will enable the department to maintain a community policing approach as the city and department decide whether to make the patrol force a fully integrated part of the community policing approach.

IMPLEMENTATION AND RECOMMENDATIONS

Staffing and Scheduling

Recommendation:

The Miami Beach Police Department should strive to enhance its patrol response staffing and scheduling to meet "Target 1," which seeks to have patrol time devoted primarily to calls for service response and self initiated activity. Target 2 and Target 3 envision increases in the amount of community policing activity performed by patrol officers. The city has added six PSS positions and is continuing to dedicate police resources to the RDAs in support of community policing. The city needs to carefully study the results of these initiatives before determining whether to devote additional resources to patrol response so that sufficient time for patrol community policing activity becomes available.

Recommendation:

The standards set for Target 1 are as follows:

- District officers should handle 80% - 90% of the calls for service workload in their assigned district.
- District officers should average no more than 50% - 60% of their available time on calls for service during off-peak times.
- District officer should average no more than 70% - 80% of their time on calls for service during peak CFS hours as long as the 70% - 80% time commitment is no longer than four hours in duration.

All three staffing patterns will meet these criteria. Because of the long shift lengths which generate officer fatigue especially given community time and because it offers no substantial advantage over the other two schedules, the 12 hour schedule is not recommended.

Although the 10 hour model – with 148 officers – would provide the lowest overall average time consumed by calls for service, the 8.5 hour model – with 135 officers – best matches the workload by having only two time blocks where average calls for service would be 80% or more of the available officer time and 12 time blocks averaging at or below 30% of the available time. In contrast, the 10 hour schedule would result in 29 time blocks with an average calls for service time consumption at or above 80% and 40 time blocks at or below 30%.

In this instance the primary advantage of the 4 day per week, 10 hours per day schedule is to provide employees with an additional day off thereby, theoretically, reducing officer fatigue and enhancing the quality of officers' non-work life. This schedule may also be a recruiting tool. Although, the 4-10 is not as efficient as the 8.5 hour model, it would require the least amount of change and still matches up reasonably well against the workload. For these reasons, MAXIMUS recommends that the city continue to use a four day, ten hour schedule but with the following alterations.

- The shift times should be as follows:
  - Midnight – 2100 hours – 0700 hours
  - Day – 0630 hours – 1630 hours
  - Evening – 1600 hours – 0200 hours

- An overlay shift should be added to the South District on Thursday, Friday, Saturday and Sunday beginning at 2000 hours and ending at 0600 hours.

This schedule provides an overlap of five hours between 2100 hours and 0200 hours when workload is quite heavy. It still provides time for a 30 minute briefing at the start of each shift. It will require that patrol supervisors manage their shifts carefully so that officers complete paperwork throughout the shift rather than returning from the field early to headquarters because they know the on-coming shift has a substantial overlap and can cover calls in the field under current scheduling practice.

The department will need to monitor court time payments under this new schedule. It was reported to the study team that midnight officers at times attend court on duty since their current shift does not end until 0900 hours. (Day shift officers currently report at 0700 hours therefore overlapping midnight officers by two hours.) There may be some increase in court time payments as a result.

Minimum Staffing

The department and the union have long subscribed to the premise that a 1990 study of the department by the International Association of Chief of Police defined what should be "minimum staffing" in terms of the number of officers that should be assigned per shift for the patrol response function. There is no such recommendation on "minimum staffing in the report.

Several standards are discussed in the report. On page 140, "operational labor" is discussed:

> *Operational labor is the total amount of criminal, noncriminal, and traffic labor. These three types of labor represent the demand placed on officers by the community in the form of calls for service. Operational labor, when expressed as a percent of total labor, should never exceed 30% on any of the three work periods, for first response units.*

No justification or support is provided for the 30% "standard". The IACP report continues on page 140 to discuss "uncommitted time":

> *"Uncommitted time" is necessary for proactive police activity, and requires special attention when determining patrol staffing requirements. Uncommitted patrol time is an essential element in law enforcement because it affects;*
>
> - *Timely response to priority calls for service;*
> - *Time officers have to initiate contact with suspicious persons and events;*
> - *Time officers have to initiate contact in a public service fashion;*
> - *Ability of offices to respond to multiple priority calls simultaneously; and,*
> - *Ability to assign multiple officers to single priority calls.*

According to this definition, uncommitted time would seem to include officer initiated activity described in this MAXIMUS report. Also on page 140, the IACP report describes targets for uncommitted time:

> *For a jurisdiction the size of Miami Beach, 35% uncommitted patrol time on both day and afternoon workperiods, and 45% on the night workperiod is normally recommended as a minimum. Because of the geographic location of Miami Beach, and the high incidence of criminal behavior in the general area (Dade County/South Florida), the minimum uncommitted time being recommended in this report will be increase to 40% on both day and afternoon workperiods, and to 50% for the night workperiod. The*

night workperiod always needs more uncommitted patrol time because facilities and public areas normally open in the daylight hours are closed at night, and as a result need more attention and scrutiny.

Conditions have changed in Miami Beach significantly since 1990 and this study. Calls for service workload has increased and additional resources are more readily available.

The only other portion of the IACP report that used the word "minimum" is in a chart (p. 150) that recommends "zone patrol staffing levels." The chart is reproduced substantively as follows:

SCHEDULED DEPLOYMENT BY DAY OF THE WEEK							
DAYS (29 OFFICERS)							
	M	T	W	TH	F	S	S
Patrol Officers Minimum	16	16	18	17	20	14	15
AFTERNOONS (52 OFFICERS)							
	M	T	W	TH	F	S	S
Patrol Officers Minimum	20	20	22	26	33	33	30
NIGHTS (49 OFFICERS)							
	M	T	W	TH	F	S	S
Patrol Officers Minimum	21	19	21	25	30	32	28

The purpose of this chart in the IACP study is to show recommendations for deployment by day of the week of the total number of officers that would be assigned to each shift. It does not take into account expected absences and the consequent number of officers "showing up." It takes the 130 officers then assigned to patrol and reallocates them. Although the word "minimum" does appear in the chart, no numbers are aligned with the label and there is no discussion of minimum staffing adjacent to the chart or in the recommendations that appear later. The IACP report does not recommend a level of minimum staffing which would require hiring officers on overtime to maintain.

Recommendation:

Minimum staffing should be left to the discretion of the District Captain in consultation with the shifts lieutenants. Factors that should be taken into account include officer safety considerations, the availability of other departmental resources, and workload demand.

Improving the Show-Up Rate

The staffing recommendations include an expectation that the department and the city make changes to bring the show-up rate to 75%. (The current show-up rate is 70.1%

which includes using overtime to fill patrol vacancies. Without overtime the show-up rate is 61%.) The department and city need to take several initiatives to increase incentives for officers to come to work when scheduled rather than use annual or sick leave.

Recommendation:

The city should consider re-instituting a leave buy-back program. Under the current procedures, officers must use or lose leave time beyond that which they can accrue. In order not to lose the leave time, officers will use it. This creates conditions that sometimes result in staffing shortages that have to be filled by officers on overtime. During the study period, the city paid patrol officers for some 26,900 hours at time and one-half for "manpower shortages" and for some 1,150 hours, at double time, for "forced patrol overtime." Leave policies involving this recommendation might include vacation leave, sick leave, and emergency vacation.

The purpose of the program should be to provide an incentive for officers to use less leave time and to increase the "show-up rate" thereby decreasing the need for overtime for "manpower shortages." A buy back program should be instituted on a dollar for dollar basis. Given that manpower shortage overtime in paid at 1 ½ time, each hour that is now spent on manpower shortages because of the use of leave time that is converted to a buy-back program will save the city 50%. Similarly, converting forced over time to a buy back will save the city from having to double an officer's pay for those hours.

The prior pilot sick leave buy back program set maximum amounts of accrued sick time that could be sold back depending on the frequency of sick leave use in the year. More incidents of sick time use resulted in a reduced number of hours that could be sold back. A reconstituted program should allow sell back of the same number of hours regardless of the prior use of leave time and should be designed so that payment to officers is made in early December. Payment in December would provide a convenient way for employees to help meet holiday expenses.

A buy back program should be closely monitored to determine if it reduces overtime because of manpower shortages that are a result of sick leave or vacation leave usage. If it fails to have a significant impact on manpower shortage overtime use, it should be discontinued.

Recommendation:

The department's current leave use policy requires personnel to call in at least 24 hours in advance of an absence for vacation, floating holidays or religious holidays. Based on studies of other similar agencies policies, MAXIMUS consultants recommend that the department should seek to change this provision so that time off for vacation, floating holidays, and religious holidays must be requested 14 days in advance.

Current MBPD policy allows employees to report their absenteeism one hour after the start of their shift if it is not a previously requested leave. MAXIMUS consultants recommend that the City of Miami Beach Police Department employees be required to call-in at least thirty (30) minutes prior to the beginning of their shift if they will be absent. It is not unreasonable to expect employees to notify a supervisor that they will be absent prior to the start of a shift. A survey of other departments in regards to their absentee notification policy ranges from one hour to several hours prior to start of shift notification. Police Department supervisors can better deploy and reassign staff in the event of an employee absence with more advanced notice.

Furthermore, specific language should be added to limit the number of people that can be off on planned leave from any one squad so that workload expectations can be taken into account. Such leave limitations should be posted for each work unit when new shifts are bid. Too often, those scheduling patrol operations have to use overtime to cover absences.

Additional limitations should be placed on leave requests during the department's busiest season. The analysis above demonstrated that the average calls per service per week during the defined "winter" season (December through May) averaged about 16% higher than during fall and summer. A limitation might take the form of reducing the number of people that can be off for each work units by season.

The department should also seek to schedule training days/times at the start of each shift bid period. By maintaining a longer range training calendar, adjustments can be made in how many people can be off at any given time from each work-unit.

These measures would provide supervisors with advance time to adjust scheduling to be able to maintain minimum staffing without requiring substantive last minute overtime. It would assist the department in improving its current level of show-up rate within the agency.

Call Clustering

The 1990 IACP report noticed that "Too many units respond to calls where they are not needed. They stay too long and talk on occasions." MAXIMUS staff noted a similar problem in that patrol response on occasions includes units not dispatched to a call that do not return immediately to call response "ready mode."

Recommendation:

Field supervisors need to carefully monitor the number of units responding to calls for service. They need to send units not needed back to their beats and to call response ready mode.

Off-Duty Employment

The chart below shows all Miami Beach officers off-duty work for the average week.

ALL OFF DUTY WORK

HOUR	MON	TUE	WED	THU	FRI	SAT	SUN
0000	12.8	6.5	6.1	7.0	7.0	15.7	11.2
0100	14.4	8.6	7.3	8.6	10.2	19.5	15.6
0200	13.8	8.4	7.1	8.5	9.8	18.4	15.1
0300	12.0	8.1	6.7	8.2	9.5	17.2	14.7
0400	9.9	6.9	5.7	7.0	8.4	16.4	14.2
0500	5.1	3.6	3.5	3.8	5.7	8.9	9.0
0600	3.1	3.5	3.6	3.1	3.5	3.3	3.7
0700	5.4	6.2	6.5	5.6	5.7	4.9	3.9
0800	9.4	10.9	10.6	9.4	10.9	7.2	5.4
0900	11.6	13.9	13.4	12.9	13.8	8.2	6.5
1000	12.0	14.3	13.9	13.2	14.4	8.7	6.9
1100	13.3	15.6	15.4	14.6	16.2	10.2	7.1
1200	13.5	15.5	15.3	14.5	17.1	11.2	8.1
1300	13.9	15.5	15.4	14.3	16.8	12.4	9.8
1400	13.6	15.0	14.8	13.8	16.7	12.3	10.6
1500	12.4	12.8	12.3	11.5	14.2	12.2	13.3
1600	11.2	10.4	10.2	10.1	14.1	12.8	14.1
1700	11.4	9.6	11.2	12.7	18.8	17.7	20.3
1800	12.6	11.2	12.9	14.7	23.7	20.3	22.3
1900	13.7	11.9	13.5	15.7	26.1	22.4	22.5
2000	13.3	11.3	12.9	15.8	26.4	22.3	22.1
2100	12.8	11.2	12.2	14.1	27.0	21.9	23.1
2200	11.9	10.7	11.9	12.4	24.3	20.9	20.8
2300	8.5	8.3	9.0	8.9	16.9	12.4	14.2
					TOTAL OFF DUTY		2040.9

Peak periods are on Friday, Saturday and Sunday evenings in the hours leading up to midnight. Because the hours worked off-duty equal the number of officers working, the table provides a gauge of how many additional officers are working in Miami Beach at any given time. The total hours per week – 2,040.9 – compares to a total average calls for service time consumed of 2,280.2 hours for the entire city. Miami Beach officers spend almost as much time each week working off duty jobs as they do responding to calls for service.

Of the 15,887 recorded off duty jobs, 81% were attributed to 10 client types. They are as follows:

Rank	CLIENT_TYPE	COUNT
1	NIGHT CLUB	3336
2	OTHER	1952
3	MERCHANDISER	1417
4	SPECIAL EVENT	1254
5	CONSTRUCTION	1023
6	BUSINESS	1010
7	RESTAURANT	809
8	CONVENTION/SHOW	771
9	"Blank"	769
10	PRIVATE	481

One benefit to the level of off-duty work is that the city has increased law enforcement officer presence that is privately subsidized. However, when combined with the large amount of overtime work and regular on-duty work, officer fatigue may be a substantial problem.

Overtime Assignments

During the study period, an average of about 2940.9 hours per week was consumed for overtime assignments. Approximately 59% of this time was spent on the following ten categories:

Rank	DESCRIPTION	Total Hours / Year
1	MANPOWER SHORTAGE	29890
2	MEMORIAL DAY 2005 - CITY MANAGER	13644
3	CC/QUALITY OF LIFE ENFORCEMENT DETAIL	9761
4	SP/QUALITY OF LIFE ENFORCEMENT DETAIL	8194
5	SPRING BREAK 2005	6853
6	ADMINISTRATIVE/STAFF DUTIES	4999
7	County -Traffic	4554
8	BURGLARY DETAIL - PATROL DIV.	4488
9	MTV AWARDS - CONTINGENCY	4335
10	HURRICANE FRANCES 2004 - FEMA	3524

Overtime work varies because much is consumed by special events. Memorial Day, Spring Break, MTV Awards, and Hurricane Frances 2004 all took place within limited time periods. Still, on-duty work and overtime and off-duty work combine into a substantial amount of time for police employees to be working in a police role and environment.

Fatigue

Chronic fatigue can cause many debilitating and even dangerous effects in police officers. An officer's physical health, alertness, and decision-making ability – especially in difficult or dangerous situations can all be impaired by fatigue. If an officer becomes irritable as a result of chronic fatigue, he/she may become inappropriately confrontational and employ unnecessary force in unwarranted situations. Further, these same problems often lead to difficulties in the officer's personal life creating strains on family relations.

It is not only the police officers themselves and their families who suffer the negative consequences of fatigue. The public is also affected. Due to the adverse effects on fatigue on alertness and motor responses, the incidence of traffic accidents involving officers who are suffering from fatigue (most notably those working night shifts) is higher than for officers who are working "normal" schedules and who are getting adequate rest. In addition, the irritability and impairment of judgment and attitude associated with fatigued officers may lead to inappropriate responses, such as unnecessarily confrontational behavior and the inappropriate use of force by officer toward persons they encounter during their workday. In short, the net result of widespread officer fatigue within a department is often ineffective policing, which may expose the public to a lower degree of police protection.

Added to all of the other negative consequences of police fatigue are the adverse financial effects that it may have on the department and the City of Miami Beach. For example, fatigue is a factor in many officer-involved motor vehicle accidents. Such accidents can be very costly to the department, and involve not only damage to, and repair or replacement of, police vehicles, but may also cause lost time due to injuries or the cost of training replacements for officers killed or crippled in these incidents. In addition, liability claims by individuals who have suffered property damage or personal injury in officer-fatigue-related accidents can result in substantial judgments or settlements.

Moreover, officer fatigue also affects the costs associated with job turnover and financial liability due to civil suits. The greater incidence of health problems associated with chronic fatigue also results in higher costs for the department due to absenteeism and increased health insurance premiums.

Police fatigue studies have resulted in several suggestions for reducing its severity and effects. Police departments can reduce the impact of fatigue and sleep deprivation on their personnel by altering shift times, setting limits on the number of hours that an officer may work during any 24-hour period, monitoring or managing extra duty assignments and second jobs, and soliciting the cooperation of the courts in devising court schedules that place less of a burden on night shift officers.

Recommendation:

The current City of Miami Beach policy allows officers to work a cumulative total of 72 hours during any work week excluding overtime or court time. Thus, an officer may work up to 32 hours off duty within the seven day work week. In addition additional, unlimited time may be spent on overtime or court time.

A survey of other similar police departments shows that 72 hours may be excessive. Clearwater, Florida and Leon County, Florida both allow a total of 80 hours per monthly work period, equivalent to 20 hours of off duty per week. Lakewood Police Department in Colorado allows a total of 64 off duty hours per monthly work period – which equals to16 hours of off duty hours per week. Dade County, Florida only permits 80 hours per pay period (including overtime). The City of Miami limits off duty to 30 hours a week. In Colorado, the Denver Police Department, limits the total on duty and off duty hours to 64 hours per week, including overtime and court time. The Sarasota, FL Police Department does not allow their officers to work more than 14 hours per day, regardless of whether it is on or off duty work.

In order to maximize high quality service to the public by providing adequate staffing, to minimize the potential impact of fatigue from substantial overtime and to improve targeted show up rates, we recommend that:

- The total number of hours an officer works per seven day period should be restricted so that, once an officer works 64 hours in the seven-day work period, the officer can work no additional "off-duty" hours. An officer may exceed 64 hours in order to complete the officer's on-duty schedule or to work overtime assignments. Currently, MBPD officers work 4 ten hours shifts. Sixty four hours would allow them to work the equivalent of their normal shift and allow for up to 8 hours per day on their three days off, assuming no overtime.

- No off-duty work can be performed in the six hours directly preceding an officer's shift starting time.

- During a seven day work week, as soon as an officer exceeds 64 hours of work – regardless of the sources (on-duty, overtime, court time, or off-duty) – the officer can work no additional off-duty jobs.

For example, if an officer began the seven day cycle with an eight hour off-duty job, then worked a regular shift of four days during which he also worked ten hours of over time, the officer would be able to work only six more hours of off-duty work during that period. (8 hours of off duty plus 40 hours regular shift time plus 10 hours of over time equals 58 hours leaving 6 hours available before the 64 hour limit is reached.

Off duty employment not only provides the potential for an economic benefit to the employee but, in the case of sworn personnel working certain functions, may prevent

criminal or other deviant behavior by virtue of the employee's presence. However, the employees' job responsibilities with the City of Miami Beach Police Department take precedence over secondary employment and should be limited if MBPD staffing suffers.

Recommendation:

The Miami Beach Police Department's current policy states that seniority shall be the sole determinant governing many of the policies of the Department. Although seniority traditionally has been given great significance in law enforcement agencies, if used as the sole determinant factor, it can create issues. For example, agencies that utilize strictly seniority for shift bidding, frequently find that the majority of less experienced officers end up on the highest crime shifts.

Different departments recognize that years of service need to be acknowledged and rewarded, yet find creative ways to accomplish a balance. For example, Broomfield County, Colorado allows their sworn officers to bid by seniority at each shift change. It allows them to only have two of the same shifts consecutively and everyone is required to work a day shift once every three cycles. This helps spread the senior officers' experience throughout the shifts, yet still gives priority to seniority.

In order for the Department to function efficiently, while providing adequate and appropriate service for the community, MAXIMUS consultants recommend the Department take into account a number of additional factors that might impact the ability of the Department to meet its mission and serve to the community. MAXIMUS consultants recommend a revision to the current policy to state that seniority is only one of several factors taken into account rather than being the sole determinant factor governing Department policy.

Recommendation:

Research conducted by project staff shows that meal breaks have an impact on patrol officer availability – about 320 hours each week are consumed by meal breaks. The Miami Beach Police Department's current practice is to allow one hour for the meal break. A formal policy should be implemented that specifies 30 minutes for the maximum meal time allotment.

Recommendation:

It was reported to the study team that under the current conditions the MBPD cannot fill all of the off-duty job requests. The city should consider regulations that permit police officers from other agencies to work off-duty in Miami Beach, under the same rules as for Miami Beach officers. This would include that the officer be accounted for through the Miami Beach dispatch system and that the officer supply a portable radio that can communicate directly with the dispatch center.

In addition, the city should consider additional standards and requirements for all private security personnel working in Miami Beach. This may include requirements that the department be notified of who is working where when. It may also include a requirement that some means of direct communication with the city be established by telephone or radio. Currently the city has on-going contracts with private security. This is further explained at the end of the report under the section titled - Layers of Security.

3. PATROL SUPERVISORS

Overview

Effective patrol supervision requires that sergeants observe and guide the work of their subordinates. They also need time to plan and direct their officers' time when they are not responding to calls for service to have an impact on crime and disorder. They also need time to review the reports written by their subordinates and to handle a certain amount of administrative tasks. Although they should observe their officers when the officers are handling calls for service, if they participate as a call responder they lose the ability to supervise and observe.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

- Patrol supervisors should spend less than 10%-12% of their time on calls for service response as either a primary or back-up unit.

This criterion recognizes that, at times, the closest available sworn police officer, regardless or rank, may need to respond. It may be for an emergency call, for which there is no closer unit and time is of the essence, or to back up another officer who needs immediate help.

This target will reserve sufficient time for sergeants to accomplish their primary supervisory mission.

Analysis of Current Miami Beach Conditions

The Miami Beach Police Department assigns a total of 24 sergeants to patrol response, each in charge of a squad of officers. On each of the three shifts, four sergeants are assigned to the South District, two to the Middle District, and two to the North District. Daily expected staffing for each shift is for two South District sergeants to be present along with one Middle and one North District sergeant. Patrol response sergeants report ½ hour before the start of each shift to compile briefing materials and leave ½ hour prior to the end of the shift to compensate for reporting early.

Analysis of CAD data shows that Sergeants respond to calls most frequently from 0200 through 0500. This period accounts for 20% of their responses. Three call types – disturbances, suspicious, and alarms – account for 52% of their call responses.

Call response accounts for approximately 8.6% of the time South sergeants have available, 9.9% of Middle District time and 5.1% of their available time in the North.

OPTIMAL MODELS FOR MIAMI BEACH

Under current conditions, patrol sergeant staffing meets optimal staffing criteria.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation:

The department should designate one sergeant scheduled for each shift as the "briefing sergeant" to take care of preparing the briefing and distributing the necessary paperwork such as subpoenas. This should normally be one of the two South District sergeants. The other shift sergeants should begin and work at the same time as the rest of the shift. If only one South District sergeant is working then the "briefing sergeant' should be from either the Middle or North District so that there is always a South sergeant available at the end of the shift to deal with reports and other matters that need immediate attention.

Under the current practice, with all sergeants reporting ½ hour before the shift and leaving ½ hour before the end of the shift, officers coming in from the field do not have their shift supervisors to review and sign off on their reports or to consult about actions taken during the shift.

4. TRAFFIC/MOTOR SQUAD/ACCIDENT INVESTIGATION UNIT

OVERVIEW

Traffic unit operations have large discretionary elements. The work of traffic officers is usually recorded when they make a stop based on their observation of a traffic violation or of behavior that is otherwise suspicious. They will make traffic stops based on indications of impaired driving. They act as call responders when they are dispatched to accidents, when they are the closest unit to an emergency call or when they are needed to provide another officer with immediate help.

In some jurisdictions, the primary role of a traffic unit is collision prevention. Under this model traffic collision reports are analyzed to discern locations with high numbers of traffic collisions and the drivers' behavior that resulted in those collisions. Enforcement actions are then directed at problem driving behavior under the theory that frequent and prolonged enforcement campaigns can result in behavioral modification hence reducing collisions. In some instances, suggestions for road modifications may also result.

Another approach views a traffic unit as a contributor to order maintenance and crime prevention. Traffics stops are aimed at encouraging people to observe traffic laws with the hope that this may improve their observation of other law as well. Traffic officers conduct stops that comply with legal requirements to generate opportunities to identify people and conduct searches. This may lead to the discovery of wanted persons and of drugs or other illicit material that may result in an arrest.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

- In Miami Beach there should be two motor squads of adequate size to provide seven day a week coverage. One squad should work from 11:00 am to 9:00 p.m. The second squad should work from 9:00 pm to 7:00 am. Highest levels of coverage should be Thursday to Sunday. Shift times should be adjustable so that sobriety check points can be run at least once a week.

- Consideration should be given to increasing the number of collisions investigated by PSS personnel so that 70% of the collisions are investigated by PSS. Collisions involving death or serious injury, major property damage or criminal charges should be investigated by sworn personnel.

The primary focus of the motor officers should be to decrease the level of impaired driving and to enforce motor vehicle laws during the hours of peak bar and club operations. Their duty hours should reflect this focus.

PSS traffic collision investigation will decrease the workload of patrol officers and allow them to focus more on order maintenance, directed patrol, crime prevention, and community policing. The use of civilian collision investigators is well established around the country, especially in Southern California. Necessary elements to make this project succeed will include extensive PSS collision investigation and courtroom presentation training.

Analysis of Current Miami Beach Conditions

Current MBPD assignments include:

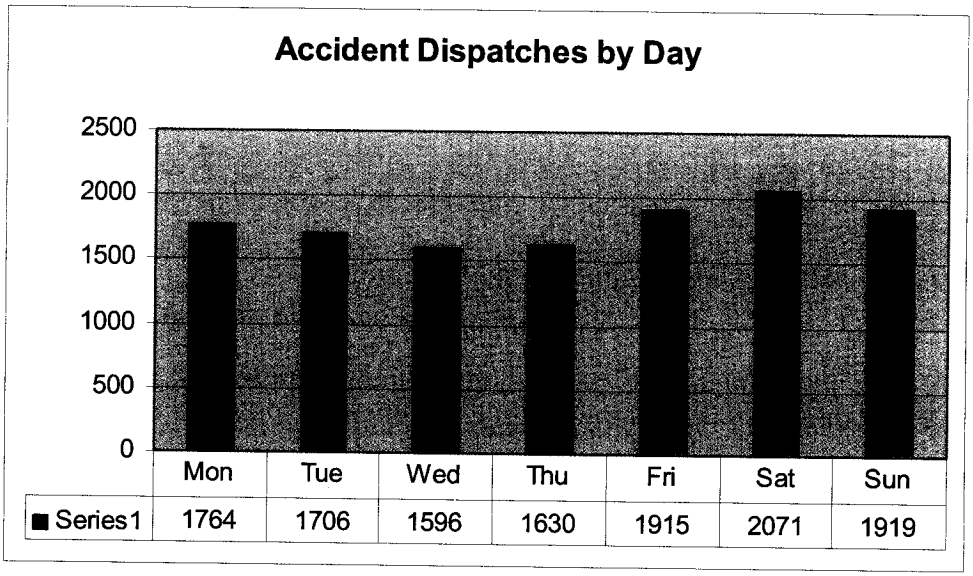
- One sergeant and five officer positions are allocated to one motor squad.
- An additional sergeant and four positions are assigned to motor cycles but they are usually assigned to call response activities and only perform traffic enforcement duty when they have time between call response duties.
- One sergeant and three officer positions are allocated to accident investigation.

However, these specialists are frequently used to fill patrol officer vacancies for call response. The rosters examined show that the traffic units are not able to operate as specialist with the daily frequency that the target criteria suggest. The optimal staffing models for patrol response, if implemented, could result in substantially increased time for those assigned to the traffic unit to pursue their primary mission.

During the study period, June 1, 2004 through May 31, 2005, an average of some 361 hours per week of CFS time was consumed by dispatches regarding accidents. This represent about 16% of the total time consumed.

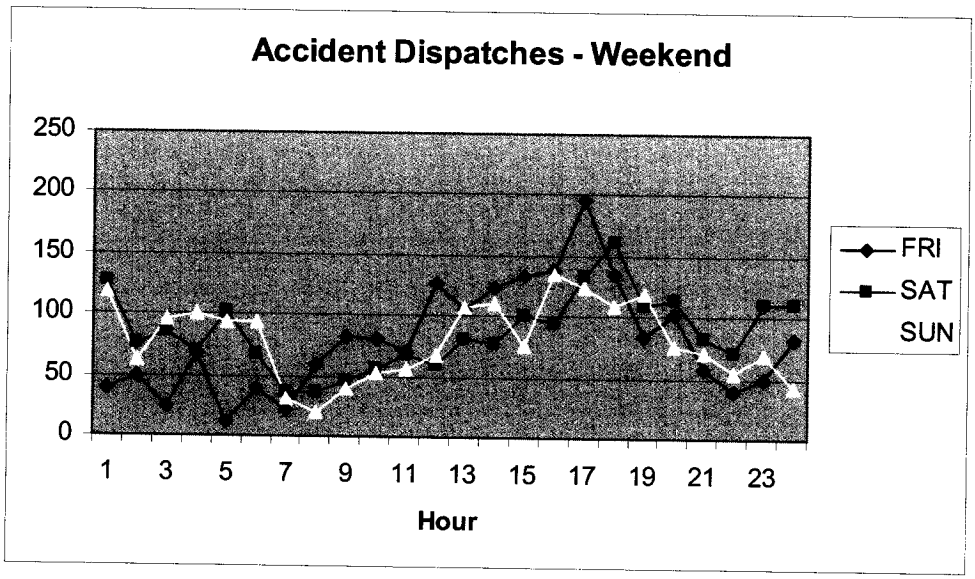
Of the 12,601 accident related dispatches, 341, or 13% were handled by PSS units. An increase in collision call handling by PSS personnel to meet the target criteria could reduce the time spent of CFS by patrol officers by 10% or more.

The following chart shows the number of accident dispatches by day of the week:



The peak day was Saturday followed by Sunday and Friday. This data strongly indicates a need for motor units and accident investigators to be scheduled on weekend.

The next chart shows for each of the three weekend days the hour of the day that accident calls were dispatched.



This data shows, although Friday at 1700 hours is the highest accident dispatch hour, a substantial number of accidents calls take place late night and just after midnight on Saturday and Sunday. These data indicate a need for motors and accident investigation units on the midnight shift on weekends.

Optimal Models for Miami Beach

To provide for seven day a week coverage and to be able to cover varying hours the department would need two traffic motor units, neither which has primary call for service response responsibility. In addition a collision investigation unit composed of a supervisor, officers and PSS positions, with duty hours corresponding to the most frequent days and times for traffic collisions would provide the department with a capability to free-up patrol officers and motor officers from many accident investigations..

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation:

The city and the department should adopt a more strategic approach to traffic enforcement by establishing a traffic collision analysis function. This function might be placed either in the police department or in the public works department. By using the information that would result from such an analysis function – such as the violations that lead to traffic collisions, frequent collision time periods and frequent crash locations -- traffic enforcement components can be more strategically assigned to use various tools to modify motorist behavior. Such focused enforcement may well be more effective in reducing collisions than more traditional traffic assignment procedures.

5. ATV – BEACH PATROL

OVERVIEW

All Terrain Vehicles (ATV) are utilized to patrol the beaches of Miami Beach, as well as the adjacent parks, parking lots, or where there is a need for police presence on terrain not suitable for conventional police patrol cars. They respond to calls for service on the beach and are assigned to the Patrol Division.

Many other Florida police departments utilize beach patrol as an enforcement and crime prevention tool. Examples include Miami, Clearwater, and Pompano Beach.

In the early 1980's there were four officers assigned to day and afternoon duties on Miami Beach.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

The ATV Unit is a discretionary unit. ATV presence, it is hoped, acts as a deterrent. They can also initiate contact when they observe behavior that is contrary to beach rules and laws, especially in the area of quality of life crimes.

Based upon assigned responsibilities and other jurisdictions, a range of staffing targets can be established to provide adequate coverage on the city's beaches. A six month evaluation should be conducted to help track the need for further resources. Additional sworn officers or the utilization of private security could be added to beach patrol to obtain optimal coverage. This would give Miami Beach PD more presence on the beach and in the community. Should additional resources be implemented, a re-assessment after an additional six months will provide a more complete measurement of the impact these resources have on the beach crime rate.

ANALYSIS OF CURRENT MIAMI BEACH CONDITIONS

Currently, in Miami Beach one police officer works four days a week, from 7:00 am to 5:00 pm. The beach is closed to the public from the hours of 12:00 midnight to 5:00 am. However, this is very difficult to enforce, since marked police units do not normally go on the beach at night, unless an unusual circumstance or emergency has occurred. Many club patrons like to walk on the beach in the hours between midnight and 5:00 am, especially after the clubs close at 5:00 am. The dim lighting and isolation, as pointed out by crime statistics, make many people vulnerable.

Per the MAXIMUS Consultant's request for information regarding crimes on the Beach, the following information covers the period January 1 through August 1, 2005. The data was obtained from the MBPD Records Department, Printrak LRMS. The data was

compiled in a report currently in the beta phase of testing by Information Technology and are represents a sample of UCR statistics.

The search criteria used was reported crime with the address "Beach", Citywide, for the above timeframe. The retrieved data was reviewed to extract any addresses that did not fit the search criteria e.g. Miami Beach Dr., etc.*. *The report is broken down by crime type.*

Forcible Rape	2
Robbery	11
Aggravated Assault	4
Burglary	2
Pick-pocketing	5*
Purse Snatch	1
Theft from Vehicle	3
Bicycle Theft	3
Theft Other	244
Auto Theft	1*
Arson	1
Simple Assault	8
Fraud/Swindling	3
Intimidation	3
Non-Forcible Sex	2
Vandalism	4*
Non UCR Reportable (e.g. Injury, investigation)	67
Total Primary Offenses	**365**

A query was then made of the MBPD Printrak System that the rest of the Department has access to. This report provided 355 reported crimes for the same timeframe. After reviewing the retrieved data (removing e.g. Miami Beach Dr., etc.), the remaining data was sorted in a spreadsheet to get the breakdown of reported crime by District.

North District	21
Middle District	40
South District	289
Total	**350**

Lastly, the crime analyst ran a Calls for Service (all calls, not just reported crime) report in the MBPD Main Menu CAD Program. There were a total of 1,669 Calls for Service to the Beach, Citywide. This is again, after the retrieved data was reviewed for items that did not fit the search criteria.

OPTIMAL MODELS FOR MIAMI BEACH

Citizen police academy graduates and volunteers or private security can be used as additional resources by the Miami Beach Police Department for service on the beach during the day.

This ATV Unit should be staffed to provide beach presence by units scheduled daily partly based on when crimes are reported and partly based on hours of beach operation and peak usage. Some consideration should also be given to using civilians as adjunct staff during daylight hours.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation:

Many cities around the United States are experimenting with the use of cameras and high intensity lighting. Miami Beach should install a monitored camera and enhanced lighting system, similar to the one used by the Chicago Police Department, to monitor the beach and serve as a crime prevention tool.

In March of 2001, the IACP delivered the results of a survey involving approximately 651 local police agencies. Eight percent said they were already utilizing surveillance cameras and half of the remaining 20% said that they would be utilizing cameras in the near future. October of 2004, the ADT and Security magazine conducted a survey which showed that 74% of respondents felt highly or somewhat reassured by having surveillance cameras in public places. The survey showed that 72% felt reassured by having them in and around private property.

For more than 30 years, the private and commercial sector has embraced the use of video surveillance technology (CCTV –Closed Circuit Television surveillance) to protect privacy and property as well as other forms of crime. Up to 75% in a recent nationwide survey utilize some type of surveillance camera.

During the last decade, internationally, video surveillance cameras have been utilized extensively by law enforcement agencies to enhance public security. The U.K has over 800 local public video surveillance programs in operation. They use the surveillance cameras not only as a crime deterrent but also to prevent terrorism. CCTV surveillance is cited as a major reason for declining crime rates in the towns such as Berwick, Northampton and also in Glasgow, Scotland (with documented decrease between 57 – 69 percent). Britain has more than 4 million cameras in use - creating some of the most watched streets in the world.

The events of 9-11, raised public concerns about security and have made the video surveillance industry more acceptable to the general public. The first documented instances of public video surveillance by American police department actually began

back in the cities of Hoboken, New Jersey (1966) and Mount Vernon, New York, (1971). In comparison to the technological advances today, the early systems were quite archaic.

Capabilities: Powerful new advances in video technology have extended the cameras range and law enforcement surveillance applications since they were initially utilized back in 1966. Current, crystal clear, wireless digital streaming models have powerful zoom lenses which can see up to 3 to 4 city blocks away. They can tilt and pan to offer 360 degree coverage. They are also able to gather sharp, clear images in extremely low light several blocks away. New digital video technology requires less labor intensive monitoring. Digital video surveillance cameras can link computer data processing power with sensor or motion detectors to filter out unrelated activities. Newer versions are extremely easy to move and require little time to set up or take down. Certain cameras can be equipped with gun-shot detection technology to help officers respond more quickly to shots fired calls. Some cameras come equipped with a highly reflective, bulletproof shield, and flashing blue lights. They can be monitored from a local pod or office, or can be monitored from a centralized station depending on the system utilized.

Utilization/benefits: Agencies are utilizing the surveillance systems to reduce violence and crime rate; as a crime deterrent and a reducer of calls for service; to promote safety, create greater security for consumers – to encourage them to return to areas. Economic savings – surveillance cameras can help meet the security needs of the public at an affordable cost when money for additional police officers is not available. It is used to identify and apprehend criminals much faster. It is a tool that is utilized in addition to the patrol officers to help their effectiveness. Cameras are useful as an investigative assistant tool. They gather evidence, and are an extremely credible and reliable. There are commonly considered to be the "perfect witness" in court. Generally the data suggests that video surveillance is successful in reducing and preventing crimes. It is considered a useful tool in the prosecution of individuals caught in the act of committing a crime. There are also public law enforcement cost savings. They have been invaluable in refuting claims of officer misconduct during tapings of contacts and arrests.

Staffing/Monitoring: Agencies vary greatly in the staffing and monitoring procedures. Certain agencies require only police officers monitor the cameras while others utilize volunteer community involved citizens or security officers. Retired police officers as well as reserve officers are also being used to keep costs at a minimal. Many agencies prefer to have active monitoring 24 hours a day. Others may only have them actively monitored for 12 – 13 hours due to manpower constraints, Agencies also differ in their policy in regards to the length of time they retain the tapes unless they are processed as evidence Agencies vary from 24 48 hours to retaining the tapes for several months.

Sample cities utilizing video surveillance programs:

Pico Rivera, CA installed 52 small digital video cameras in parks, shopping centers and in other public places in the small town. The cost was $50,000. Their primary purpose is to use the cameras as a weapon against graffiti and tagging - focusing on areas prone to vandalism. They hope to drastically affect the cost the

city paid on clean up from graffiti and tagging last year (Approximately $500,000.)

Virginia Beach began its program in 1993 when 5 remote cameras were installed along the beachfront. The project was heavily supported by citizen advisory groups and businesses. In 1994 and additional 5 cameras were added. The beach consists of 42 blocks of which 27 are covered by cameras. There system including operation and maintenance is paid for through drug asset forfeiture funds and city contingency funds. The system is actively monitored 13 hours a day on average. It has been used to monitor narcotics investigations, track and apprehend suspects and monitor vehicular and pedestrian foot traffic.

West Palm Beach, FL was testing out cameras at the end of 2005 n some of their most violent neighborhoods. Their plan – to make West Palm Beach the most closely monitored city in south Florida with this innovative police tool.

Chicago and its operation disruption program claim that this illustrates that no other police department has embraced technology as much as the Chicago PD. They currently have more than 2000 cameras in place. They believe that the street corner cameras act as a force-multiplier – each camera is the eyes of four to five officers. This allows them to have more eyes, and more ears, in more places, leading to more arrests of those caught red handed. They say it has actually freed more officers for patrol. As a tool to make communities safer Chicago noticed a 76% reduction in calls for service relating to narcotics, and a 17% reduction in serious crime and "quality of life" criminal incidents fell 46% in the first seven months of installing cameras in specific areas.

Additionally Boston, Cincinnati, New Haven, Portland, Grand Rapids, Anchorage, are a few other cities that have utilized surveillance cameras successfully in the last few years. It is the age of virtual police patrolling.

Ideas for resources: With the 1994 Violent Crime Control and Law Enforcement Act, which authorized federal funding for state and local law enforcement prevention programs, also came about the establishment of Regional law Enforcement Technology Center to provide information on technology for public safety purposes, along with guidelines and standards for use – including interest in new surveillance technology. Many agencies have applied for and utilized Federal grant money for initial start up costs. Others have created a partnership with local businesses or communities.

Chicago utilized both Federal funds and asset forfeiture and seized drug monies. L.A. worked with local businesses and a motion picture association to raise money for their program. Revere, MA obtained a Homeland security grant and supplemented it with community policing dollars. They are working to tie in with the Boston harbor and the state police.

Strategic locations: The use of cameras by the Miami Beach Police Department appears to have extremely wide possibilities and may be an optimal tool for MBPD if resources for manpower, especially at the beach after dark, are limited.

Cameras strategically placed in the city of Miami Beach including the malls, the beach and downtown areas would be beneficial to the police department for monitoring incidents of crime. In high crime areas throughout the major cities listed above, the residents have been very supportive of the use of cameras, especially the business community.

Camera Implementation Issues: A strategic plan for utilizing the video surveillance equipment would be worth looking into. The following are a listing of key components when implementing a security camera surveillance system:

1) Development of policy and procedure that will address the "accountability, processing, storage and release of evidence" obtained by surveillance cameras. The policy must be in place prior to implementation of the program.
2) The training that camera-monitors must receive before they can use the equipment. Background checks if you are using non-sworn officers may be time consuming.
3) Funding for future upkeep and/or upgrades to technology.
4) Educational training and buy in by the community. Policy must be reassuring to the citizens concerning respect for their privacy. This is especially important due to the concerns continually being brought to the media by the ACLU that video surveillance conflicts with the First, Fourth - Katz vs. United States 389 U.S. 347 (1967) and United States vs. Knotts 368 U.S. 276, 281-82 (1983), and Fifth Amendments to the U.S. constitution and the rights they protect. In the opinion of most legal scholars, the continuous use of video surveillance if it is in public areas does not present significant legal obstacles. In fact, under current interpretations case law, continuous video surveillance is analogous to a mechanical police officer.
5) Training on the penalties, both administrative and criminal, that a camera monitor faces if he/she breaks the law.
6) A carefully designed plan laying out the focus and steps to be utilized to effectively use this tool, and how you will analysis the data to monitor effectiveness. i.e. - Will you put up signs and announce where all the cameras will go or will they be utilized on a more discrete level to monitor criminal activity – drug deals, gang activity – tagging etc.

(See also the 2004 Journal of Technology Law and Policy Journal of Technology Law and Policy. December 2004, 9 J. Tech. L & Pol'y 143, 20923 words. Article: Electronic visual surveillance and the reasonable expectation of privacy, max Guirguis) – resource on guidelines for electronic surveillance cameras and equipment. Charleston, S. C. has also spent extensive time in addressing policy issues.

Recommendation:

The city and the police department should continuously monitor beach front safety. Consideration should be given to a second, overlapping shift to expand beach coverage

from 5:00 pm to 1:00 am. The possibility of hiring security officers to augment patrol should be considered. The existing private security contract might be expanded to accomplish this.

Implementation Issues

The Miami Beach command staff will have to determine the proper allocation of personnel. By policy, Miami Beach officers normally do not drive their vehicles on the beach. The information provided by the consultants point out that many police departments are supplementing their work force by the use of cameras and private security. Private security officers cost less than sworn personnel, making them a viable option in certain circumstances. The use of private security may be a point of contention by the police union, but from a practical standpoint, it may be both cost effective and efficient for the City of Miami Beach. Specifics regarding the use of private security are discussed at the end of the report in the section entitled Layers of Security.

6. MARINE PATROL

OVERVIEW

It is the policy of the Miami Beach Police Department to patrol the waterways and coastal waters of the City of Miami Beach and to protect the lives and property of those utilizing these waters. The Marine Patrol Squad also includes an Underwater Recovery Team (URT) which will assist in various underwater operations.

The functions of Marine Patrol in Miami Beach include:

- Enforce applicable regulatory laws, statutes and ordinances relating to boating and marine safety.
- Enforce all criminal laws, statutes and ordinances. Assist in investigations of crimes related to vessels (i.e.: theft, fraud, etc.).
- Protect the lives and property of residents and visitors utilizing the marinas, waterways and coastal waters of the city.
- Investigate boating accidents.
- Coordinate vessel movement, supervise mooring, and regulate marine traffic.
- Investigate hazards to navigation, immediately reporting hazards to the appropriate government.
- Assist in preparation and implementation of Natural Hazard Emergency Plans in the areas of, but not limited to: Distribution of hurricane materials and information; Monitoring and reporting of tidal and flooding information; Acquisition of applicable hurricane supplies; Evacuation; and, Training.

Special duties of the unit include:

- Assist City departments in performing functions that relate to the area of marine responsibility.
- Assist other governmental agencies requesting assistance including U.S. Coast Guard, U.S. Customs, and the Drug Enforcement Agency, such as Operation Blue Lightning.
- Assist other police agency marine patrol units when requested.

- Serve as liaison between the Department and other local, state and federal agencies having marine interests.

The Marine Patrol covers 66 miles of waterfront property. This area requires five to six hours driving time by boat. There is nine miles of ocean front property. Six tour boats are out on the water in Miami Beach.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

Additional officers for the marine patrol unit would be optimal. Marine patrol not only has an enforcement function but also increases residents and visitors perceptions of safety and security. Both boat and beach users will be positively influenced by marine patrol visibility.

ANALYSIS OF CURRENT MIAMI BEACH CONDITIONS

At the time of the study, the marine patrol was staffed with one sergeant and two officers. They work from 9:00 am to 7:00 pm, with no more than two individuals on duty at one time. Even with different days off, this scheduling system does not provide consistent seven day a week coverage.

OPTIMAL MODELS FOR MIAMI BEACH

Marine patrol should provide at least one two officer boat ten hours per day seven days a week. The hours should be adjusted seasonally. When staffing is available for a second boat the daily coverage time should be expanded by three hours so that some overlap is available. Many citizens in the islands have favorable comments about the Miami Beach marine patrol.

The new anchoring and mooring ordinance will soon come into play for deployment. More responsibilities will be forced on the Miami Beach Marine Patrol. Homeland Security issues are also involved in the smuggling of drugs and contraband. The Underwater Recovery Team also has the responsibility to inspect drug vessels for devices attached to the vessels' underside to conceal illegal contraband or explosives.

Additional staffing levels could cover the hours of 9:00 am to 10:00 pm which will allow coverage seven days a week. If necessary, day officers can respond to a situation or operation at night on an on-call basis. Two additional officers were recently authorized by the City of Miami Beach for marine patrol and will help staffing.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation:

A more thorough system of tracking calls for service by the Marine Patrol should be implemented by the Miami Beach Police Department. Much of their work is not being logged. Several marine patrols across the country utilize some form of documentation system to track their work, including the Seattle and San Francisco Marine Patrols. As of January 1, 2006 more comprehensive data is being captured. It is being entered into the Miami Beach Police Department CAD system.

Several new data elements are being developed by the MBPD marine patrol to better track their calls. Since this information has just begun to be captured, the marine patrol's activity should be assessed, using the new information, six months.

Recommendation:

The Marine Patrol Unit should consider how private security and citizen volunteers might be used for routine tasks to free up the officers time for more investigative and pro-active activities and extend coverage.

Implementation Issue

The unit should be allocated a computer that is connected to the network to assist in data capture and in operations. Communication between the marine patrol division and the rest of the MBPD would also be enhanced. Wireless network connectivity throughout the City of Miami Beach, and/or potential computer network capabilities at the Marine Patrol marina will have to be evaluated. Funding for the installation of network connectivity and data security will be primary concerns in the implementation of this recommendation.

7. REDEVELOPMENT AREA POLICING

OVERVIEW

The City of Miami Beach has two redevelopment areas that receive specially funded police attention—South Pointe and the City Center/Historic Convention Village area. These areas are to be policed according to community policing concepts which include the assignment of police officers to permanent areas of responsibility or beats. The officers assigned to these areas are expected to form partnerships with residents and businesses to jointly solve crime and disorder problems and share ownership of the solution strategies. Problem solving initiatives should be designed to address specific issues in the redevelopment areas. Assigned officers are charged with maintaining a highly visible police presence and addressing the quality of life issues within the RDA boundaries. They are supposed to facilitate eradication of graffiti and enhanced sanitation and street cleaning services.

Each RDA is assigned a Community Policing Problem Solving Team that has flexible scheduling and that is charged with varying its tactics to address a variety of problems. Tactics are to include walking beats, bicycle patrol, ATV patrol, and undercover tactical operations. Members of the team should receive training that will help them specialize in RDA problems including handling homeless people, enforcement of noise complaints, quality of life problems, youth gangs, street level narcotics, and traffic enforcement. The RDAs are allocated overtime funds to establish specific problem focused task forces.

Officers assigned to the RDAs should partner with City Code Enforcement to address those properties, businesses, and structures that fall outside of the traditional law enforcement response. In addition, the RDA units strive to partner with park rangers and private security personnel to provide security and enhanced visible uniform presence and to supplement the sworn officers.

RDA funding has also been used to create storefront police mini-stations in the South Pointe RDA. The mini-station is designed to provide the South Pointe RDA with a community policing presence and have officers funded from both the RDA and General Fund utilize the building for meetings, completion of paperwork, and to have a convenient location for residents and visitors to address police issues.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

Because of their dedicated funding and the City's desire to focus police attention of the two RDAs, the units assigned to them should focus on specific problem solving efforts within the RDA. They should utilize a formal problem oriented policing methodology to document how their time is consumed and to demonstrate the value that is received for the substantial sums spent on their operations.

Without the ability to demonstrate verifiable results for the level of effort expended, it is difficult to document the value of the RDA policing efforts. With a total budget of some $5 million it is important that the MBPD justify the expense.

Analysis of Current Miami Beach Conditions

Current staff assignments include:

- One sergeant, eight officers and two PSS positions are assigned to the City Center RDA.
- One sergeant, five officers and two PSS positions are assigned to the South Point RDA.
- A crime analyst is shared between the two RDAs.

With the FY06 budget the South Point Area will no longer be a formal RDA. There will remain some funding dedicated to community policing activities in the South Pointe area.

The department has no way to accurately document changes in the crime and disorder conditions in the RDAs. The RDA boundaries do not match beat boundaries and the city's geographic database has not been structured so that RDA specific activity can be retrieved. RDA officers do respond to some calls for service activity but without examining the address of every call, there is no way to determine how much of the calls for service workload they do perform in their areas.

At this point, without formal documentation of problem solving efforts, and without the ability to monitor changes in calls for service, it is difficult to judge the level of effort and the results obtained on the crime and disorder problems in the RDAs. Without knowledge about the level of effort and results in the RDAs, it is very difficult to know whether the number of officers currently assigned is optimum. Consequently, whether policing expenses in the South Pointe area might be lowered and officers reassigned can not be presently determined based on objective criteria.

Optimal Models for Miami Beach

Without a system to measure the results of the RDA units' efforts in the RDAs, an optimal staffing model cannot be specified. Whether there are enough officers assigned cannot be determined without knowledge of their impact on the size and scope of the crime, disorder and security problems specific to the RDAs.

The lack of a measurement system also prevents an analysis of the level of effort expended by patrol officers in the RDAs. The RDA units are not designed as primary calls for service responders, but their efforts should have an impact on the calls for service that are generated from the RDAs. If they are successful in their problem solving efforts, then response by patrol officers to RDA calls should decrease.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation:

The Miami Beach Police Department should adopt a formal problem oriented policing methodology to identify and track the work of the personnel assigned to the RDAs. The first key element will be for the city to reconfigure its geographic information file so that activity in the RDA areas can be isolated from work outside the area. Because the city still wishes to focus on South Pointe, even though it no longer an "official" RDA and because the City Center is still a formal RDA, the department needs to be able to track activity that occurs in the RDA in order to determine the impact of its community policing activities on the areas.

All RDA personnel should under go formal problem oriented policing training. One model that has worked well in other departments is the SARA model. It is composed of four elements: Scanning, Analysis, Response, and Assessment.

During the scanning phase, officers and the RDA analyst should look for incidents that might seem to be isolated but which when viewed together help to define crime and disorder problems. Sources of information for this effort typically include calls for service, crime and incident reports, citizen contacts, and officers' field observations. Based on their experience in the area over the last two years, RDA personnel probably already have a good candidate list of problems.

After the problems have been identified, the problem should be thoroughly analyzed. Key information should be developed about the offenders, the victims, and the locations that serve to define the problem. What is happening, when it occurs, and its impact all need to be detailed as part of the analysis phase.

The key to crafting the problem response is the analysis. Officers should be encouraged to propose solutions that include police response, involvement of other governmental agencies, the private sector, area residents and other people that frequent the area. The factors in successful response are often the creativity of the officers involved and a search both within the department and in other departments for successful approaches that may have been implemented to deal with similar issues.

The final step is assessment of the results of the response. The department needs to carefully measure the impacts of its efforts. Was the problem "solved", was it reduced significantly, is there less harm resulting, or has another agency assumed the burden of dealing with it?

Each problem solving effort needs to be documented so that successes can be replicated and less successful efforts result in better subsequent response designs. These problem

solving efforts enable the department to measure the impact of its efforts in the RDA by providing detailed accounts of specific initiatives identified and the result obtained.

The department should consult the Center for Problem Oriented Policing, a U.S. Department of Justice, Community Oriented Policing Services sponsored website at www.popcenter.org to gain further information. Areas that should be considered to measure for each problem solving episode that the department undertakes should include the following:

Scanning:

- Are recurring problems of concern to the public and the police identified?
- Are the consequences of the problem for the community and the police identified?
- Are those problems prioritized?
- Are broad goals developed for solving the problem?
- Does the project team confirm that the problems exist?
- Does the project team determine how frequently the problem occurs and how long has it been taking place?
- Does the problem selected for closer examination reflect the knowledge gained through the above steps?

Analysis:

- Are the events and conditions that precede and accompany the problem identified and understood?
- Is relevant data that needs to be collected identified?.
- Is research conduct to determine what is known about the problem type?
- Has there been an inventory of how the problem is currently being addressed along with the strengths and limitations of the current response?
- Has the scope of the problem been narrowed as specifically as possible?
- Have a variety of resources that may be of assistance in developing a deeper understanding of the problem been identified?.
- Has a working hypothesis about why the problem is occurring been developed?

Response:

- Has there been an open brainstorming for new interventions?
- Has there been a search for what other communities with similar problems have done?
- Is there documentation that indicates how a choice was made among the alternative interventions?
- Has a response plan been outline which identifies responsible parties?
- Are the specific objectives for the response plan clearly stated?.
- Are the planned activities carried out with the level of effort and resources required to have an impact on the problem?

Assessment:

- Was the plan was implemented as planned. Are modifications documented and recorded?
- Were pre- and post-response qualitative and quantitative data collected?
- Were broad goals and specific objectives attained?
- Were any new strategies identified that were needed to augment the original plan?
- Is there an ongoing assessment to ensure continued effectiveness?

An especially critical component of this problem oriented policing process is to measure the overall impact of problem solving in the designated RDA's. Crime rates, calls for service, hot spots, and citizen satisfaction all should be compared and contrasted before the formal problem solving process is implemented and after it has been in operation for a year.

It will also be important to consider the level of effort in terms of personnel hours and resources consumed that is required for each problem solving project. The department can then compare its use of dedicated problems solving personnel and resources against other efforts designed to deal with crime and disorder problems to determine how it can achieve the best results.

The City has requested that MAXIMUS provide some guidance regarding potential performance measures for policing in the RDAs. While the scope of this project focuses on the assignment of police personnel, we are pleased to be able to provide some additional guidance regarding how the City might develop a performance measurement system for evaluating RDA activity. Some readily achievable, relevant performance measures that the City might apply to the RDAs include:

1. **Performance against the plans established using the SARA model described above.** As part of developing a SARA plan, the City should consider its overall goals in having the RDAs and the role that policing plays within the broader context. The assessment element of the SARA model provides the vehicle for the broader evaluation.

2. **Changes, over time, in calls for service.** The City should modify its reporting systems to provide the ability to capture quickly all calls for service coming from within the redevelopment areas. It should establish a specific basepoint, and then monitor the volume of calls in a regular basis to track changes in the volume.

3. **Changes, over time, in the character of the calls for service.** As part of the SARA planning, the department should establish some specific goals for changes in the nature of the calls for service, with an emphasis in achieving significant declines in violent crime and significant property crime. At the time that the department establishes the basepoint for calls in service, it should also establish a basepoint for the character of calls and then track changes over time.

4. **Time commitment, relative to changes in calls for service and the character of calls.** The City should track the time commitment of officers assigned specifically to the redevelopment areas, as well as time commitments for officers responding to calls or conducting self-directed activity in those areas. This time commitment should then be compared against time commitments throughout the City, relative to calls and call character, to determine whether the specific deployment of personnel to the areas is having the desired effect.

5. **Customer perception.** The City should regularly measure the perception of residents and businesses within the development areas, to determine if the specialized assignments results in a noticeably better customer perception (to be expected from the focused police efforts) than for the City as a whole.

8. CRIME SUPPRESSION TEAM

OVERVIEW

As crime and disorder problems are analyzed and patterns discovered, the department should have the capacity to direct resources to concentrate on such problems without stripping patrol of resources or by adding to officer fatigue through the frequent use of overtime assignments. Resources should be adequate to address a problem consistently each day, if needed. In additional, resources should be adequate to deal with two different problems at the same time, perhaps in different districts.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

- Staffing should be sufficient to allow for one supervisor and a squad of officers be available seven days a week for 10 hours of coverage daily or to allow two simultaneous operations to be conducted independently with each staffed by a sergeant and enough officers to meet officer safety considerations.
- The department should have two crime suppression teams.

Some anti-crime operations require a consistent, daily focus for an extended period of time. Without everyday operations, suspects may learn when it is "safe." Some operations may need only a short duration but there may be problems in more than one location at the same time. Two squads, that can work together or that can work independently, will satisfy these requirements.

Analysis of Current Miami Beach Conditions

- There are positions allocated to staff two crime suppression units each with one sergeant and four officers.

Optimal Models for Miami Beach

By maintaining two teams as suggested in the target criteria, the department will have sufficient staff to conduct prolonged operations by combining the two squads or to conduct smaller simultaneous operations.

IMPLEMENTATION AND RECOMMENDATIONS

None.

9. CRIME PREVENTION

OVERVIEW

To combat crime effectively, an agency must establish an aggressive crime prevention program. While all law enforcement agencies devote some time to crime prevention, the majority are predominantly reactive, choosing to concentrate on response to calls, following-up investigations and arrests. Most agencies can do much more to prevent crime. Crime prevention has become a cooperative, police-community effort. Intensive public involvement, working individually and in groups, is the critical element in preventing many types of crimes, particularly burglary, robbery, and rape, three of the most prevalent major crimes with which the police and community must cope.

The crime prevention unit must have strong working relationships with the department's crime analysis, patrol, community relations, and public information functions. The Department should also continually evaluate departmental crime prevention efforts.

The Crime Prevention function should include, but is not limited to, the following: Prioritize specific targets and upon citizen request, those crime prevention programs that are shown to have an impact on crime experienced by community citizens. Information used to determine what programs are effective shall be based on:

- Information received by Crime Prevention employees
- Citizen contact
- Research
- Other law enforcement agencies
- Interpretation of crime data submitted by the Department Crime Analyst
- Targeting programs by crime type and geographic area in the basis of an analysis of local crime data
- Targeting programs to address community perceptions or misperceptions of crime
- Conduct regular meetings regarding crime prevention and pertinent information with community groups and / or neighborhood associations.
- Conduct crime prevention seminars, lectures and other activities so designated or assigned by the Chief of Police.
- Evaluate the effectiveness of crime prevention programs every two (2) years.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

The Crime Prevention Program is aimed at providing safety and security for the public, their businesses, households, and possessions by concentrating on activities appropriate

for the prevention of crime in their homes, at businesses, and on the street. Those activities will include, but not be limited to, the following:

- Citizen awareness.
- Inspections of premises and recommendations concerning physical security.
- Dissemination of information concerning crime prevention techniques.
- Active solicitation of persons / groups interested in crime prevention.
- Coordination of activities of persons / groups involved in the program.

ANALYSIS OF CURRENT MIAMI BEACH CONDITIONS

The crime prevention unit has been responsible for the following statistical data from March 2004 to March 2005:

- Over **400** Arrests that have dealt with a combination of quality of life issues (*112* Graffiti arrests, *239* quality of life arrests, and *50* felony arrests).
    - ♦ As a result of the graffiti investigation, 6 active graffiti groups were identified. The arrests of the members of these groups have led to a **90%** reduction in the reported cases of graffiti/vandalism in the North District.
- Attended **48** Homeowner Association Meetings throughout the City of Miami Beach (often changing their schedules to accommodate the time frame of the meeting).
- Addressed **375** Community Enhancement Forms (submitted by Patrol Officers).
- Conducted **91** Home/Business Security Surveys and/or Site Plan Reviews.
    - ♦ The NRO's have contacted the victim(s), via phone, of every residential or business burglary and offered a security survey.
- Implemented a program that addresses issues of trespassing on private property. The *Trespass Program* deals with a signed letter from the owner of the property, payment for a sign that identifies the City of Miami Beach as an agent for the property, and subsequent distribution of the sign after completion of all necessary paperwork. To date, the crime prevention unit has distributed **75** "No Trespass Signs" to various businesses throughout the City.
- Initiated an investigation that, with the cooperation of the Criminal Investigations Unit, ended with the arrest of several individuals involved in an organized "theft ring" at Burdines. The arrest resulted in the return of $480,000 worth of merchandise.

The statistical data alone would represent success but it does not, by itself, indicate the true impact that the crime prevention unit has had on the community. The crime prevention unit was also involved in the following individual events:

- United several city departments in an effort to create a safer community (i.e. Neighborhood Services, Sanitation, Public Works, Code Enforcement, and the Parks Department). As a result of increased cooperation among the various departments, the NRO's were able to participate in *40* weekly Outreach missions with Neighborhood Services.
- Held "Special Event" crime prevention meetings for the following events: *Spring Break 2004,* and the *Holiday Crime Prevention Meeting 2004.*
- Organized the Crime Prevention Fair 2005.
- Assisted with the Orange Ribbon Event 2004.
- Creation and implementation of an email system that can be used to email the 33 recognized Homeowners/Business Owners groups throughout the City of Miami Beach.
- Assisted with the annual *Miami Beach Toy* giveaway.
- Assisted with the 2004 *PAL Car Seat* giveaway.
- Maintained an updated "hot board" for the Patrol Division (Roll Call Room) that identified areas of concern and recent crime trends.
- Assisting the victims of Hurricane Charley.
- Continuously deploying S.M.A.R.T. Trailers throughout various locations in the City upon the requests of the administration, the public, and other officers.
- City wide Bicycle lock and registration effort.

DNA Project: The Crime Prevention Unit, in conjunction with the Police Athletic League, is currently in the process of implementing a DNA Life Print program that would be available to every elementary and middle school child in Miami Beach by April 2005. The program will attempt to reach out to approximately 7000 children at a cost of $35,000.00 dollars (all money received was donated).

OPTIMAL MODELS FOR MIAMI BEACH

Crime Prevention Unit staffing should be sufficient to meet the public demand for crime prevention presentations, site surveys and to organize and maintain neighborhood/block watch organizations.

The size of a crime prevention unit is essentially discretionary. Work demands are usually a function of crime prevention marketing efforts rather than independent citizen requests. Additionally, the vibrancy of neighborhood/block watch organizations is tied to departmental efforts to organize the community and to maintain the life of such

organizations. Neighborhood/block watch meetings are usually most effective and well received when police attendance is by the officers that regularly patrol the neighborhood.

Many departments such as Arlington, Texas and Lakewood, Colorado have successfully used civilians for substantial portions of crime prevention units. Miami Beach currently has one civilian in the unit. The Department is currently attempting to have her job reclassified to a higher level.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation: Many other police departments utilize volunteers and graduates of citizen police academies to make crime prevention presentations. The Miami Beach Police Department should explore the use of civilians to augment the work of crime prevention officers.

Recommendation: Miami Beach Police Department should also consider adding a civilian member of the crime prevention unit whose main function would be to work with businesses and neighborhood groups in the entertainment district.

Implementation Issues

The civilian employees who augment the work of crime prevention will need additional training in their area of expertise. MAXIMUS consultants recommend periodic ride-a-longs to supplement the training program. Crime prevention schools are available in many parts of the country and should be utilized as a resource.

10. SCHOOL RESOURCES

OVERVIEW

School resource officers carry out a variety of functions. They serve to link the school to the police department so that school problems can be more effectively dealt with before they escalate. They provide a positive role model for students. They can establish relationships with students that provide the Department with information that will help to solve crimes involving juveniles. And, they may get information that may be used to head off conflict between students outside of the school. These functions usually require a full time presence in a high school but many jurisdictions, depending on the nature of their middle schools have found that one officer can split time between two middle schools. In some instances, one middle school may have sufficient problems to justify the assignment of a full time school resource officer. Community policing also recommends partnerships with school officials and students.

In Miami Beach, the Schools are responsible for providing for this program.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

Miami Beach Police Department currently has school liaison officers in South Pointe, Feinberg Fischer, North Beach and Biscayne public elementary schools. Each elementary school has a retired police officer as the school liaison officer. Three of these officers are retired from the Miami Beach Police Department. They are at the schools when they are in session and do not work when the schools are not in session.
Nautilus Middle School and Miami Beach High School are the two public schools which have full time Miami Dade Public School Police Officers assigned to them.
There are two Catholic schools, St. Patrick's and St. Joseph's and two Jewish schools, Hebrew Academy and Lehman, which have grades one thru twelve. There are currently no Miami Beach school liaison officers in these private schools.

In other police agencies, school resource staffing allows for one officer to be assigned to each high school in the city and to achieve a ratio of one officer to two middle schools.

ANALYSIS OF CURRENT MIAMI BEACH CONDITIONS

The four school liaison officers are retired and do not make arrests. They nominally would help in traffic direction, problem-solving and dealing with issues in the elementary schools that are presented.

OPTIMAL MODELS FOR MIAMI BEACH

An optimal model would be for the Schools to retain retired Miami Beach school officers for Nautilus Middle School and Miami Beach High School. More and more departments are aware of the value of these officers since D.A.R.E. has been eliminated in many

schools nationwide and more law enforcement resources are being put in the elementary and middle school levels.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendation: Retired police officers are an advantage to the community since health benefits are not normally paid. The benefit of additional retired school resource officers would foster a more community-oriented working relationship between the teachers and students of the two schools and the Miami Beach Police Department. This, in turn, will generate a more trusting relationship and an increased level of communication between the community and the Police Department. The Miami Beach schools may wish to consider the benefits of hiring of additional retired police officers.

In conversations with the Miami Beach School Resource Officers, they stated that patrol officers are rarely called to their respective schools. The only time the patrol officers direct traffic is if a school crossing guard is sick or unavailable. Patrol officers do also work radar near the schools as assigned.

Implementation Issue

Allocating funds for the hiring of two additional retired police officers as school liaisons at Nautilus Middle School and Miami Beach High School is the responsibility of the Schools. Volunteer work by retired police personnel may assist in the implementation of this recommendation.

11. STRATEGIC INVESTIGATIONS

OVERVIEW

The Strategic Investigations Unit provides quality police service to the community by conducting investigations into narcotics, vice and organized crime activity occurring in Miami Beach. Members of the unit meet with citizens in the community and assist with identifying the neighborhood problems as they relate to the responsibilities of the unit. The unit takes an active role in resolving these problems by aggressive enforcement and interaction with the Uniformed Patrol division, Criminal Investigations Division and other City Departments and governmental agencies.

The Strategic Investigations unit is responsible for the review and investigation of all narcotics, money laundering, prostitution, vice and organized crime activity. It also conducts sensitive investigations at the direction of the Chief of Police, Assistant Chief of Police or the Criminal Investigation division Commander. Additionally, the unit conducts intelligence-gathering activities and works closely with other agencies regarding cases of mutual interest. The unit actively networks, monitors or participates in local, state and federal terrorism task forces. The unit also has detectives detached to various multi-agency task forces in South Florida. The unit conducts pre-licensing screening of nightclub establishments in conjunction with the City's licensing department. The Strategic Investigations Unit investigates violations by local establishments of the Nuisance Abatement Ordinance. The Unit coordinates confiscations of properties and cash assets derived from the illegal sale of narcotics.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

There is no specific standard for staffing this function, and the City should employ a flexible standard. Staffing this function is highly variable and can depend upon size, demographics, and crime characteristics of any given community.

Miami Beach is a community of over 95,000 persons and a site attracting visitors and tourists that can bring the number of persons visiting the city to well over half a million during weekends or special events. As the major tourist attraction in South Florida, it attracts many large-scale narcotics traffickers to its jurisdiction as is evidenced by seizures and arrests by other agencies in this city. Residential areas have many high end and middle class buildings mixed in with section eight housing and poorer families with many drug dealers selling from the lower priced apartments, affecting the quality of life throughout the city. The success of Miami Beach as a tourist center has also resulted in the large growth of street prostitution as a problem confronting the citizens of the city. SIU is tasked with meeting those challenges.

ANALYSIS OF CURRENT MIAMI BEACH CONDITIONS

The Day Shift (Organized Crime/Intel/Terrorism) previously had four detectives and a supervisor, now only three detectives. The squad handles a large number of requests for intelligence on special events, which limits what proactive details they can handle.

The Afternoons Shift (Street Enforcement Section) previously had two full squads. As a result of attrition, it currently has only one squad with one sergeant. With only 6 officers assigned, the squad can expect only to cover four days and probably with only four officers on duty (vacation time, leave time) which precludes any large-scale narcotics operation. With only one sergeant to supervise the six detectives in undercover operations, supervisor is stretched to complete his duties.

Attrition in this unit as been as follows:

- Between January through July 2004 SIU lost manpower due to injuries, special details, and military leave totaling 690 hours.
- Between January through July 2005 SIU lost manpower due to injuries, special details, and military leave totaling 1899 hours.
-

On average for 2004 there were a total of 24 detectives and supervisors assigned to SIU. There are presently for 2005 (due to attrition) a total of 18 supervisors and detectives actively assigned to SIU.

The following represents the staffing of this unit as it stands at the time of the site visits:

Unit Command
1 Captain
1 Lieutenant
1 Administrative Aide I

Day Shift(Organized Crime/Intel/Terrorism)
1 Sergeant
3 Detectives
This squad works Monday through Friday 7 am-5 pm). It is responsible for: organized crime; special event intelligence; terrorism intelligence; public corruption cases; confiscation officer for the Department; and other cases at direction of Chief

Afternoons (Street Enforcement Section)
1 Sergeant
6 Detectives
This squad works Wednesday through Saturday, 5 pm – 3 am. It is responsible for the investigation of complaints of narcotic activity and prostitution, one detective is assigned as tech officer, but most of the equipment is either obsolete or unserviceable

Task Forces
South Florida Money Laundering Strike Force (2 detectives)
HIDTA Group (1 detective)
SEANET (1 sergeant, 2 detectives)

Miscellaneous
Military Leave 1-detective
Injured Service Connected 1-detective (expected to be out at least six months/possible disability retirement pending)

The unit has a current total of eighteen active sworn personnel and two sworn personnel on inactive status. By comparison, in February 2003, the unit had a total of twenty-seven active sworn personnel, including supervisors and detectives

The SIU assignments and cases include:

- Complaints of street narcotics
- Complaints of street prostitution
- Assist other law enforcement agencies (DEA, Customs, US Postal, etc)
- Underage drinking
- Bar/nightclub violations (narcotics/vice)
- Terrorism intelligence
- Special event intelligence
- Public corruption cases (at direction of Chief)
- Organized crime investigations
- Assist other Units within the department (undercover burglary and robbery investigations)
- Supplement Patrol with manpower during critical events (hurricanes, Memorial Day, New Years, and other large events)
- Liaison with City legal on Confiscation/forfeiture matters (departmental confiscation officer)

As of June 27, 2005 the SIU has made:

- 929 arrests including,
- 365 narcotics,
- 382 prostitution/vice,
- 66 sale of alcoholic beverage to underage persons, including 21 nightclub personnel
- Responded/investigated 253 narcotics/vice complaints from residents
- Seizures and confiscations to include:
    - 851 grams of crystal methamphetamine,
    - 6 Gallons of GHB;
    - 223 tablets of MDMA (ECSTACY);
    - 517 crack cocaine rocks; 976 grams of cocaine powder,
    - 5171 grams of marijuana;
    - $237,663 in U.S. currency.

The following table compares this year's work activity to totals from other years:

	2000	2001	2002	2003	2004	July '05
TOTAL 39	534	655	926	929	1007	663
NARC 39	?	354	360	365	467	303
PROST 39	96	135	333	382	377	217
UNDERAGE	51	125	155	66	30	4
COMPLAINTS	236	279	166	253	283	142
$ SEIZED	74,856	149,566	90,344	237,663	$185,284	$61,835
CRACK	562G	556G	421 ROCKS	517 ROCKS	864 rocks	192rocks
POWDER	2927G	1534G	646G	976G	1455 gm	254gms.
MARIJ	29LBS	5LBS	1930G	5171G	14,127 gm	1850gms
MDMA	7150PILLS	80,000PILLS	3904PILLS	223PILLS	1455 pills	123pills
KETAMINE	911VIALS	53KILOS	?	?	3643 oz.	00
GHB	?	?	90LBS	6GALLONS	66oz.	852gms
METH	?	?	204G	851G	211gms	519gms
HEROIN	?	?	1 KILO	?	26 GMS.	00
$ SEIZED WITH SEANET	N/A	N/A	N/A	N/A	$1,555,652 46 kilos	$35,700

The Underage Drinking Grant active in F/Y 2004/2005 has existed since September 2001. From its inception, the initiatives have yielded two hundred and seventeen arrests of nightclub employees and other businesses for the sale of alcohol to persons under the age of twenty-one, of which 66 were in 2003.

The prostitution Mapping Program has been effective since August of 2000. Department wide there were 480 prostitution related arrests, of which 458 were in the prostitution mapping zone. Since the programs inception, 89 prostitutes have been placed on the mapping program, including 17 prostitutes in 2003. Numerous other Law Enforcement Agencies (including Miami-Dade and Miami) have initiated prostitution mapping programs and utilized the Miami Beach format to start their initiatives.

OPTIMAL MODELS FOR MIAMI BEACH

Staffing should be sufficient to allow one major investigation to occur (aimed at mid-level trafficking for a period of several months) and, simultaneously, on-going street level investigations such as inside bars and clubs.

The department needs adequate resources to conduct at least two investigations at the same time. Such investigations might at time intersect such as when a street level drug investigation leads to the opportunity to deal with an offender who is a significant supplier to Miami Beach dealers and users. Investigation of an organized prostitution ring may lead to drug trafficking or to robberies. Optimal models for staffing are dependent upon the crime characteristics of the community. Drug and prostitution investigations can be complicated, time intensive, and lengthy. As a result, the occurrence of these types of crimes may have an impact on the optimal staffing level for the Miami Beach police department.

IMPLEMENTATION AND RECOMMENDATIONS

Recommendations

Many police departments throughout the United States including the FBI are utilizing civilian criminal intelligence analysts and investigative aides. Civilians and volunteers have been used successfully to perform investigative tasks such as surveillance, financial analysis, follow-up on cases, and assisting in cold case investigations. .

The use of non-sworn personnel should be considered to supplement staffing in Strategic Investigations. If this strategy is implemented, it show be assessed annually to assess its ongoing effectiveness.

Implementation Issues

Recruitment of qualified individuals and training are important factors of this program. Training must be provided which will insure competence in these particular skills.

Implementation of this program will need to be negotiated with union representatives at contract renewal as sworn officer now perform the majority of these tasks.

12. CRIMINAL INVESTIGATIONS UNIT

OVERVIEW

The Miami Beach Police Department's Criminal Investigations Unit is headed by a captain and is composed of three units, each headed by a lieutenant – the Violent Crimes, Afternoon section, the Violent Crimes Section, and the Property Crime Section.

As described on the department's web site, Violent Crimes detectives are responsible for the investigation of all robberies, assaults, rapes and murders occurring in the City of Miami Beach. Specialized offices within the section handle specific types of violent crimes against person investigations including, homicide, domestic violence, robbery aggravated assaults and batteries.

The Department's Domestic Violence office strives to be a leader in community awareness and victim's advocacy in South Florida area and not only investigations reported domestic violence crimes but also provides services to domestic violence victims, victims of crime, and their children, such as:

- criminal justice support and advocacy
- information and referrals
- emergency transportation
- emergency food vouchers
- Counseling services specializing in trauma resolution and community activism.

The Property Crimes Squad investigates thefts, burglaries, and criminal mischief, all of a felony nature. According to the website, property crimes detectives are assigned to districts with responsibility for geographic areas. This is designed to enhance detectives' knowledge of community problems in their assigned districts through increased interaction with citizens and businesses. The hope for result is that detectives will recognize crime trends as they develop and, therefore, be able to intervene more quickly.

The Pawn Shop Squad helps the police department comply with state statues relating to the regulation of pawn shop activity. The squad monitors pawn shop activities in the city and strives to locate stolen property. The squad enforces laws relating to pawned activates.

The Economic Crime Squad investigates fraud, and computer (Internet) related crimes. This squad also investigates white collar crimes including embezzlement, credit card fraud, and identity theft.

The Auto Theft Squad investigates all crimes involving vehicle, motorcycle, scooters, and construction equipment (with engines) within the city. The unit investigates stolen, recovered, and re-VIN-ed vehicles. This unit also works closely with other squads within

the Criminal Investigation Division when vehicles are involved and / or stolen during the commission of another crime.

The Crime Scene Unit of the Miami Beach Police Department is responsible for the processing of crime scenes, including major crimes (i.e., homicide, sexual battery, kidnapping). Through the collection of evidence, photography and sketching, unit members strive to document all facets of a crime to assist in its reconstruction so that perpetrators can be arrested and solid cases can be presented to the prosecutor.

Special Victims detectives investigate crimes by and against juveniles in Miami Beach. The cases they handle range from sexual assaults, child and elderly abuse to missing persons and bicycle thefts. This squad is also responsible for surveillance, monthly residential checks and monthly neighborhood notifications regarding sexual predators.

TARGET STAFFING CRITERIA AND RATIONALE FOR MIAMI BEACH

Staffing for investigations should, similar to patrol, match workload to personnel resources. While the patrol model defines workload in terms of calls for services, self initiated activity and patrolling time, investigative workload is composed of conducting "thorough" investigations of crimes reported to the police. A thorough investigation may result in an arrest. It may not. A thorough investigation occurs when all leads are exhausted and further effort appears to be counter productive. Consequently it may not result in an arrest being made, warrants being issued or the case being otherwise "solved."

Some cases have no useful evidence and are of a minor nature. These usually warrant little or no investigative effort unless more evidence comes to light at some future point. A department with few serious crimes may chose to spend time on such cases but departments with the level of reported crime similar to Miami Beach usually chose to dedicate investigative effort to more serious crimes with higher chances of solution. Therefore, the target criminal investigation staffing criteria for the Miami Beach Police Department is that enough investigative personnel should be assigned such that all reported crimes deemed worth following up are investigated thoroughly.

ANALYSIS OF CURRENT MIAMI BEACH CONDITIONS

MAXIMUS worked with the staff of the Criminal Investigation Unit to develop measures of investigative workload and of the time each detective has available annually to dedicate to investigations. Investigative workload depends on examining the average number of crime reports that merit a formal follow-up investigation, as discussed above. Miami Beach, like comparable agencies, uses a screening process to set aside initial reports that provide virtually no "solvability" factors, or, investigative leads. Other cases with leads such as suspect names, suspect descriptions, license plate numbers, precise property descriptions and/or distinctive modus operandi will undergo investigation. Each

investigative unit projected, based on sampling its case load, the average portion of incoming cases that will be set aside and the portion that will merit a follow-up investigation. Because of the severity of some offenses, some types of cases always receive a follow-up investigation.

C.I.U. personnel also examined case loads to measure the average time needed to conduct a thorough investigation as defined above. The average time needed depends on the type of crime and the level of solvability factors present in the initial report. Average times were calculated for instances where the case involved only victim "contact", and for cases that were "uncomplicated", "complicated", or "typical". Calculations were then made to determine what proportion of each crime type fell into the "contact only", "uncomplicated", "complicated", or "typical" designation. The results of these measurements are displayed in Appendix 1 later in this section.

The volume of cases reported in 2004, the last complete year of work load available during the time of the study, was used to calculate the time needed for investigations. The department did provide case volume through the first six months of 2005. If these figures were doubled to project 2005 workload to project further into 2006, many investigative units would expect to see an increase in case load from 2004. But the examination of calls for service volume by season shows substantially more calls in the first half of the year than in the last half. Consequently, 2004 workload was used for the analysis although investigative workload variation is discussed in the optimal staffing section below.

Once measures are developed for investigative work load, the number of working hours an investigator has annually has to be determined. This set of calculation must take into account vacation time, sick time, training, and other absences. It must also take into account work time that is not spent directly on case investigations.

Each detective has a base number of works hours per year of 2080 (52 weeks times 40 hours per week). The MBPD's Criminal Investigations Unit calculates average absences per detective as follows:

- 136 annual vacation hours
- 37.9 Divisional average annual sick usage
- 30.2 Divisional average annual compensatory leave usage
- 93.46 Divisional average annual training leave

This totals approximately 298 hours of average absence time leaving 1,782 hours available per investigator. However, not all of this time is available for case investigation. Currently, detectives work four, ten hours days. A review of the daily activities of the detectives within C.I.U. shows the following per 10 hour day:

- Roll Call Briefing consumes 30 minutes - 5%
- Absent exigent circumstances investigators have a one hour meal break - 10%

- Meetings with Supervisors and Crime Analyst 30 minutes each day - 5%
- Court attendance, Pre-Files, Depositions (approx. 100 hrs. annually) averaged to about 30 minutes daily. - 5%

These activities, combined, account for an average of 25% of a detective's time, leaving 1,337 hours available, on the average, annually (75% of 1,782 hours).

The following series of tables summarizes the information from the tables in Appendix 1 of this section. It shows for each MBPD investigative unit the total hours needed per year to investigate each type of case and the number of investigators needed per crime/activity type. The amount of time consumed on arrests is shown separately since not all investigations result in an arrest. The time needed per arrest averages 3.5 hours and included time needed for document preparation, processing, transportation, etc.

The first table shows the workload and staffing summary for the Violent Crimes – Dayshift squad. The investigative time available by this unit was reduced by an additional 10% since members average one hour per day handling telephone calls from the public and from other departmental personnel. Other units are not subject to this same work. Consequently, the investigative hours per detective for this unit are 1,159 annually.

VIOLENT CRIMES - DAYSHIFT	Hours Needed per Year	# of Investigators Needed Based on 1159 Available Hours per Year
Crime Type		
Homicide/Attempts	642	0.55
Assault/Battery	1998	1.72
Shooting Investigation	436	0.38
Sex Offences	346	0.30
Robbery	369	0.32
Death Investigations	983	0.85
General Investigations	745	0.64
Subtotal	**5,519**	**4.76**
Arrest Processing*	403	0.35
Total	**5,922**	**5.11**
Current Staffing	6	

DOMESTIC VIOLENCE/ AFTERNOON VIOLENT CRIME UNIT	Hours Needed per Year	# of Investigators Needed Based on 1337 Available Hours per Year
Crime Type		
Domestic Violence	1,911	1.43
Sex Offenses	89	0.07
Death Investigations	136	0.10
General Investigations	343	0.26
Subtotal	**2,479**	**1.85**
Arrest Processing*	150	0.11
Total	**2,629**	**1.97**
Current Staffing	2	

ROBBERY UNIT	Hours Needed per Year	# of Investigators Needed Based on 1337 Available Hours per Year
Crime Type		
Robbery	5490	4.11
Assault/Battery	681	0.51
General Investigations	476	0.36
Subtotal	**6,647**	4.97
Arrest Processing*	605	0.45
Total	**7,261**	5.43
Current Staffing	6	

SPECIAL VICTIMS UNIT	Hours Needed per Year	# of Investigators Needed Based on 1337 Available Hours per Year
Crime Type		
Missing Persons	1,237	0.93
Sex Offenses/Juvenile	303	0.23
Bicycle Thefts	1,010	0.76
General Investigations	785	0.59
Sex Offender/Predator Checks (hrs/Month)	360	0.27
Subtotal	**3,695**	2.76
Arrest Processing*	88	0.07
Total	**3,783**	2.83
Current Staffing	4	

PROPERTY SECTION	Hours Needed per Year	# of Investigators Needed Based on 1337 Available Hours per Year
Crime Type		
Burglary	8,746	6.54
Theft	2007	1.50
Criminal Mischief	15	0.01
Arson	496	0.37
Pawn (Inspections)	288	0.22
Subtotal	**11,552**	8.64
Arrest Processing*	655	0.49
Total	**12,207**	9.13
Current Staffing	7	

ECONOMIC CRIMES	Hours Needed per Year	# of Investigators Needed Based on 1337 Available Hours per Year
Crime Type		
Fraud	2,218	1.66
Financial Theft	1,076	0.80
General Investigations	998	0.75
Subtotal	**4,292**	3.21
Arrest Processing*	478	0.36
Total	**4,770**	3.57
Current Staffing	3	

AUTO CRIMES	Hours Needed per Year	# of Investigators Needed Based on 1337 Available Hours per Year
Activity Type		
Auto Theft Trend Investigation	4,500	3.37
Subtotal	**4,500**	3.37
Arrest Processing*	70	0.05
Total	**4,570**	3.42
Current Staffing	3	

The detectives of the Auto Theft Unit conduct proactive investigations of auto theft patterns, or trends, rather than of individual crime reports. The unit focuses on organized groups targeting a specific vehicle type, vehicle part or area of the city. These investigations are conducted as a team rather than by the individual detectives, in contrast to other investigative units. The workload for this unit averages 10 trend investigations per year, each requiring 450 hours for a thorough investigation.

OPTIMAL MODELS FOR MIAMI BEACH

The following table shows for each unit the staff positions needed according to the model, the current staffing, the recommended optimal staff and the change that would result from implementing optimal staffing over the current staffing.

	Needed Staff per Model	Current Staffing	Recommended Optimal Staffing	Change
Violent Crimes – Dayshift	5.11	6	6	0
Domestic Violence / Afternoon Violent Crime Unit	1.97	2	2	0
Robbery Unit	5.43	6	6	0
Special Victims Unit	2.83	4	3	-1
Property Section	9.13	7	10	+3
Economic Crimes	3.57	3	4	+1
Auto Crimes	3.42	3	4	+1

Reassigning one detective position from the Special Victims Unit would result in a need to add four new positions to the Criminal Investigations Unit.

The level of staffing shown in the chart above is based on caseload work from 2004. MAXIMUS staff came across nothing that indicated that investigative priorities are scheduled to change or that the level of crimes to be investigated is undergoing significant transformation. However, a number of the investigative units projected substantial changes in the number of incoming crimes reports based on the first half of 2005. Most were projecting increases although some significant decreases were also projected. Projections were achieved by doubling the figures through the first six months of 2005.

In the section of patrol workload, seasonal variations in calls for service were explored. The first part of the year – January through May – showed significantly higher levels of workload than the rest of the year. Consequently, doubling the figures from the first six months is likely to lead to faulty projection for the entire year. The department should consider modifying the figures in this section if the 2005 final case figures substantially deviated from the 2004 figures.

The model above does build in some flexibility for increased workload since staffing fractions are usually rounded up to the next whole position.